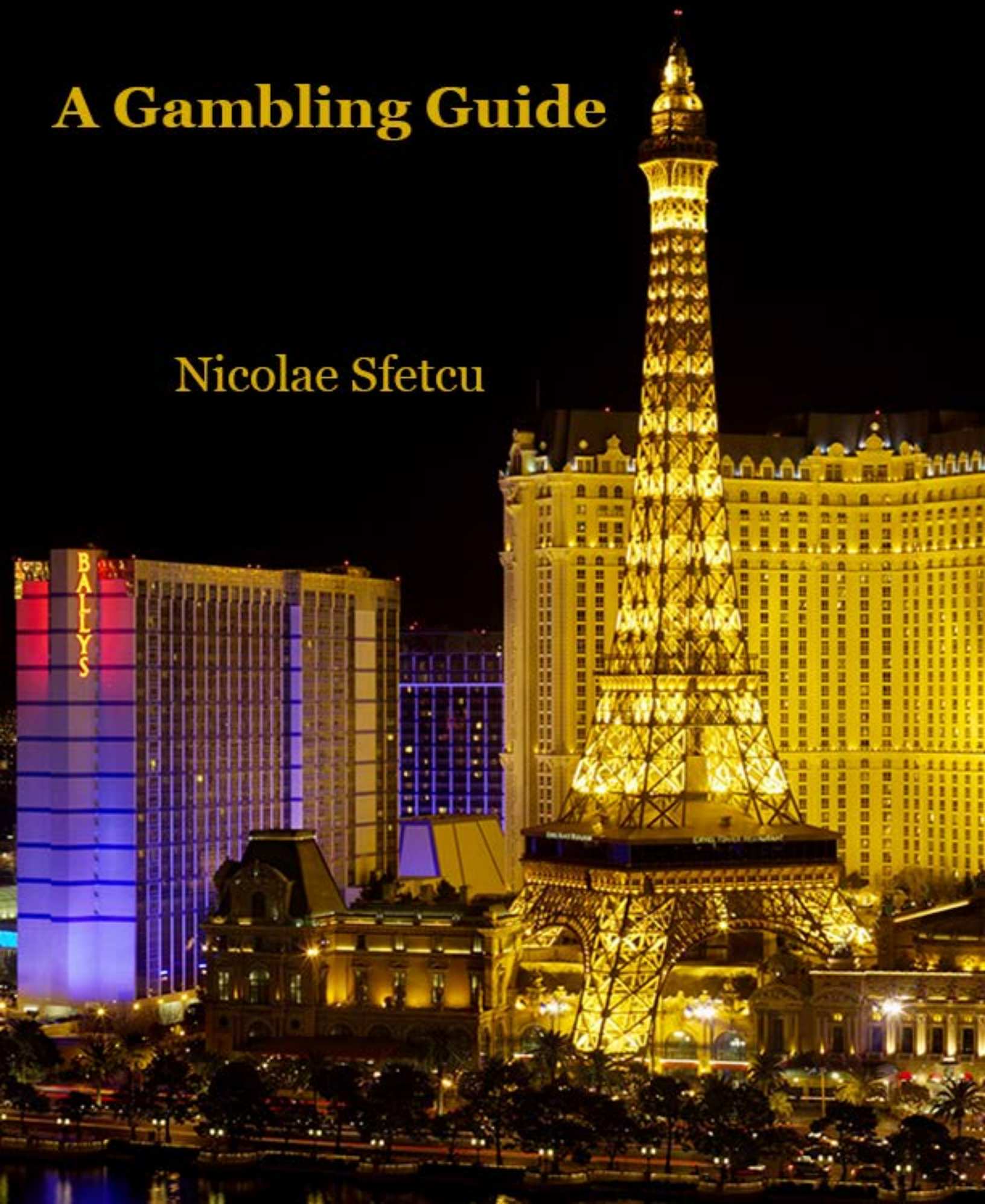


# A Gambling Guide

Nicolae Sfetcu



# **A Gambling Guide**

Nicolae Sfetcu

Published by Nicolae Sfetcu

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# A Gambling Guide

*Gambling* has had many different meanings depending on the cultural and historical context in which it is used. Currently, in western society, it has an economic definition, referring to "wagering money or something of material value on an event with an uncertain outcome with the primary intent of winning additional money or material goods". Typically the outcome of the wager is evident within a short period of time.

This definition of gambling usually excludes:

- Emotional or physical risk-taking where what is being risked is not money or material goods (e.g., skydiving, running for office, asking someone for a date, etc.)
- Buying insurance, as the primary intent of the purchase is to protect against loss, rather than to collect or win
- All forms of 'investment' (stock market, real estate) with positive expected returns, economic utility, and some underlying value independent of the risk being undertaken
- Starting a new business, as time and effort are also being wagered and the outcome is not determined in a short period of time
- Situations where the possibility of winning additional money or material goods is a secondary or incidental reason for the wager/purchase (e.g., buying a raffle ticket to support a worthy cause)
- Prediction markets or knowledge exchanges where the outcome is to encourage the development of market-based mechanisms for resolving questions of science, technology, management, strategy, planning, policy, etc.

There are three variables common to all forms of gambling:

- How much is being wagered, the initial stake (in money or material goods).
- The predictability of the event.
  - In mechanical or electronic gambling such as lotteries, slot machines and bingo, the results are random and unpredictable; no amount of skill or knowledge (assuming machinery is functioning as intended) can give an advantage in predictability to anyone.
  - However, for sports events such as horse racing and soccer matches there is some predictability to the outcome; thus a person with greater knowledge and/or skill will have an advantage over others.
- The odds agreed between the two (or more) parties to the wager; where there is a house or a bookmaker, the odds are (quite legally) arranged in favour of the house.

The *expected value*, positive or negative, is a mathematical calculation using these three variables. The amount wagered determines the scale of an individual wager (bet); the odds and the amount wagered determine the payout if successful; the predictability determines the frequency of success. Finally the frequency of success times the payout minus the amount wagered equals the "expected value" The skill of a gambler lies in understanding and manoeuvring the three variables so that the "actual value" is positive over a series of wagers.

# Gambling

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## Legal aspects

Because religious authorities generally frown on gambling to some extent, and because of various perceived social costs, most legal jurisdictions limit gambling to some extent. Some Islamic nations prohibit gambling; most other countries regulate it. Most countries' laws do not recognise wagers as contracts, and views any consequent losses as debts of honour, unenforceable by legal process. Thus organized crime often takes over the enforcement of large gambling debts, sometimes using violent methods.

Because contracts of insurance have many features in common with wagers, legislation generally makes a distinction, typically defining any agreement in which either one of the parties has an interest in the outcome bet upon, beyond the specific financial terms, as a contract of insurance. Thus a bet on whether one's house will burn down becomes a contract of insurance, as one has an independent interest in the security of one's home.

Furthermore, many jurisdictions, local as well as national, either ban or heavily control (by licensing) gambling. Such regulation generally leads to gambling tourism and illegal gambling, the latter often under the auspices of organized crime. Such involvement frequently brings the activity under even more severe moral censure and leads to calls for greater regulation. Conversely, the close involvement of governments (through regulation

and gambling taxation) has led to a close connection between many governments and gambling organisations, where legal gambling provides much government revenue, such as in Monaco.

There is generally legislation requiring that the odds in gambling machines are fair (i.e. statistically random), to prevent manufacturers from making some high-payoff results impossible (since these have very low probability, this can quite easily pass unnoticed).

## Psychological aspects

Though many participate in gambling as a form of recreation or even as a means to gain an income, gambling, like any behavior which involves variation in brain chemistry, can become a psychologically addictive and harmful behavior in some people. Reinforcement phenomena may also make gamblers persist in gambling even after repeated losses. Because of the negative connotations of the word "gambling", casinos and race tracks often use the euphemism "gaming" to describe the recreational gambling activities they offer.

The Russian writer Dostoevsky portrays in his novella *The Gambler* the psychological implications of gambling and how gambling can affect gamblers. He also associates gambling and the idea of "getting rich quick", suggesting that Russians may have a particular affinity for gambling. Dostoevsky shows the effect of betting money for the chance of gaining more in 19th-century Europe. The association between Russians and gambling has fed legends of the origins of Russian roulette.

- See Compulsive gambling

## Types of gambling

### Casino games

#### "Beatable" casino games

With proper strategy, a smart player can create a positive mathematical expectation.

- Poker (Also recognised as a game of skill)
- Blackjack -- **with** card counting
  - Video poker -- with proper pay table and/or progressive jackpot
  - Pai Gow Poker and Tiles -- player-dealt
- Sports betting
- Horse racing (parimutuel)
  - Slot machines -- only linked slots when multi-player jackpots reach a certain point

## **"Unbeatable" casino games**

These have a negative expectation, players as a group will lose in the long run (unless they cheat).

- Bacarat
- Craps
  - Roulette (unless physical prediction is used)
- Keno
- Casino war
  - Faro (All but extinct)
- Pachinko
- Sic Bo
- Fan-Tan
- Let It Ride
- 3-card Poker
- 4-card poker
- Red Dog
- Pyramid Poker
- Caribbean Stud Poker
  - Spanish 21 -- without counting
- Texas Hold'em Bonus Poker

## **Non-casino gambling games**

Some of these are played recreationally without stakes

- Bingo (US|UK)
- Lottery
- Mahjong
- Dead pool
- Dice-based
  - Backgammon
  - Liar's dice
  - Passe-dix
  - Hazard
  - Threes
  - Pig
  - Mexico
- Card games
  - Liar's poker
  - Bridge
  - Basset
  - Lansquenet

- Piquet
  - Put
    - Coin-tossing
- Head and Tail
  - Two-up (Australian casinos offer versions of two-up)
- Confidence tricks
  - Three card monte
  - Shell game
    - Carnival Games
  - The Razzle
    - Hanky Pank
    - Penny Falls
    - Six-Cat
    - The Swinger
    - The Push-up Bottle
    - The Nail Joint
    - Con Games (in bars)
      - Put and Take
      - The Smack
      - The Drunken Mitt

## Fixed-odds gambling

Fixed-odds gambling and Parimutuel betting frequently occur at or on the following kinds of events:

- Horse racing (**see below**)
- Greyhound racing
- Jai alai
- Football **matches (particularly on Association and American football)**
- Golf
- Tennis
- Cricket
- Baseball
- Basketball
- Ice hockey
  - Rugby (League and Union)
- Snooker
- Motor sports
- Boxing
- Darts
- Cross-country skiing
- Biathlon

In addition many bookmakers offer fixed odds on a number of non-sports related outcomes, for example the direction and extent of movement of various financial indices, whether snow will fall on Christmas Day in a given area, the winner of television competitions such as Big Brother, election results, and so forth. Interactive prediction markets also offer trading on these outcomes, with "shares" of results trading on an open market.

See Sports betting below.

## Gambling on horse races

One of the most widespread forms of gambling involves betting on horse races, most commonly on races between thoroughbreds or between standardbreds.

Wagering may take place through parimutuel pools; or bookmakers may take bets personally. Parimutuel wagers pay off at prices determined by support in the wagering pools, while bookmakers pay off either at the odds offered at the time of accepting the bet; or at the median odds offered by track bookmakers at the time the race started.

In Canada and the United States, the most common types of bet on horse races include:

- *win* – to succeed the bettor must pick the horse which wins the race.
- *place* – the bettor must pick a horse which finishes either first or second.
- *show* – the bettor must pick a horse which finishes first, second, or third.
- *exacta, perfecta, or exactor* – the bettor must pick the two horses which finish first and second and specify which will finish first
- *quinella or quiniela* – the bettor must pick the two horses which finish first and second, but need not specify which will finish first.
- *trifecta or triactor* – the bettor must pick the three horses which finish first, second, and third and specify which will finish first, second and third.
- *superfecta* – the bettor must pick the four horses which finish first, second, third and fourth, and specify which will finish first, second, third and fourth.
- *double* – the bettor must pick the winners of two successive races; most race tracks in Canada and the United States take double wagers on the first two races on the program (the *daily double*) and on the last two (the *late double*).
- *triple* – the bettor must pick the winners of three successive races; many tracks offer *rolling triples*, or triples on any three successive races on the program. Also called *pick three* or more commonly, a *treble*
- *sweep* – the bettor must pick the winners of four or more successive races. In the US, this is usually called *pick four* and *pick six*, with the latter paying out a consolation return to bettors correctly selecting five winners out of six races, and with "rollover" jackpots accumulating each day until one or more bettors correctly picks all six winners.

Win, place and show wagers class as *straight bets*, and the remaining wagers as *exotic bets*. Bettors usually make multiple wagers on exotic bets. A *box* consists of a multiple wager in which punters bet all possible combinations of a group of horses in the same race. A *key*



involves making a multiple wager with a single horse in one race bet in one position with all possible combinations of other selected horses in a single race. A *wheel* consists of betting all horses in one race of a bet involving two or more races. For example a 1-all daily double wheel bets the 1-horse in the first race with every horse in the second.

People making straight bets commonly employ the strategy of an 'each way' bet. Here the bettor picks a horse and bets it will win, and makes an additional bet that it will show, so that theoretically if the horse runs third it will at least pay back the two bets. The Canadian and American equivalent is the bet across (short for across the board): the bettor bets equal sums on the horse to win, place, and show.

In Canada and the United States punters make exotic wagers on horses running at the same track on the same program. In the United Kingdom bookmakers offer exotic wagers on horses at different tracks. Probably the *Yankee* occurs most commonly: in this the bettor tries to pick the winner of four races. This bet also includes subsidiary wagers on smaller combinations of the chosen horses; for example, if only two of the four horses win, the bettor still collects for their double. A *Trixie* requires trying to pick three winners, and a *Canadian* or *Super Yankee* trying to pick five; these also include subsidiary bets. The term *nap* identifies the best bet of the day.

A *parlay* (US) or *accumulator* (UK) consists of a series of bets in which bettors stake the winnings from one race on the next in order until either the bettor loses or the series completes successfully.

(Similarly, greyhound racing offers a popular betting alternative to horse racing in many countries.)

## Sports betting

See also main sports betting article

Betting on team sports has become an important service industry in many countries. For example, millions of Britons play the football pools every week. At sports betting, players may beat the bank.

Most jurisdictions in Canada and the United States regard sports betting as illegal (Nevada offers full sports betting and the Canadian provinces offer Sport Select - government-run sports parlay betting). However, millions engage in sports betting despite its illegality.

In Canada and the United States the most popular sports bets include:

- against the spread - the bettor wagers either that the favoured team will win by a specified number of points or that it will not. Giving the points involves betting the favourite, and taking the points means betting the underdog. See point spread. A team covers the spread if it wins the game with the score modified by the spread. If Dallas and Washington are playing and the spread is (Dallas -7), then Dallas has to win by at least 8 points to cover. Half-point spreads are also possible and the spread may change.
- against odds - the most popular types of bets against odds comprise simple bets that a team will win and **over-under** (bets on the total points, runs,

or goals scored by both teams). In making an over-under bet, the bettor wagers that the total will exceed or fall short of a total specified by the bookmaker.

- against a combination of odds and spread

In sports betting, a *parlay* involves a bet that two or more teams will win. In the United States gamblers have made the parlay card one of the most common forms of sports betting: here bettors wager on the outcomes of two or more games. If all their picks win, they collect. Most such betting occurs in workplaces. A teaser is one type of parlay where the bettor can alter the point spreads on the two games in the bet.

Events like the Super Bowl, and the Kentucky Derby are famous for bringing in sports betting.

## Scratchcards

A scratchcard is a small piece of card where an area has been covered by a substance that cannot be seen through, but can be scratched off. Under this area are concealed the items/pictures that must be 'found' in order to win.

The generic scratchcard requires the player to match three of the same prize amounts. If this is accomplished, they win that amount. Other scratchcards involve matching symbols, pictures or words.

Scratchcards are a very popular form of *gambling* due to their low cost. However, the low cost to buy a scratchcard is offset by the smaller prizes, compared to casino jackpots or lottery wins.

## Other types of betting

One can also bet with another person that a statement is true or false, or that a specified event will happen (a "back bet") or will not happen (a "lay bet") within a specified time. This occurs in particular when two people have opposing but strongly-held views on truth or events. Not only do the parties hope to gain from the bet, they place the bet also to demonstrate their certainty about the issue. Some means of determining the issue at stake must exist. Sometimes the amount bet remains nominal, demonstrating the outcome as one of principle rather than of financial importance.

Betting Exchanges allow consumers to both back and lay at odds of their choice. Similar in some ways to a stock exchange, a bettor may want to back a horse (hoping it to win) or lay a horse (hoping it to lose, effectively acting as bookmaker)

## Arbitrage betting

Arbitrage betting, is a theoretically risk-free betting system in which every outcome of an event is bet upon so that a known profit will be made by the bettor upon completion of the event, regardless of the outcome. Arbitrage Betting, as the name implies, is a combination of the ancient art of arbitrage trading and gambling which has been made possible by the recent explosion in online bookmakers. The large numbers of bookmakers create the marketplace within which, theoretically, this form of Arbitrage can be practiced.

## Staking systems

Many people have formulated staking systems in an attempt to "beat the bookie" but most still accept that no staking system can make an unprofitable system profitable over time. Widely-used systems include:

- Fixed stakes – a traditional system of staking the same amount on each selection. This method suits conservative punters if the stake remains below 5% of the bank.
- Fixed profits – the stakes vary based on the odds to ensure the same profit from each winning selection. This method suits conservative punters well, although if the profitability of one's bets varies independently of the odds the bettor simply reduces his or her cash flow.
- Due-column betting – A variation on fixed profits betting in which the bettor sets a target profit and then calculates a bet size that will make this profit, adding any losses to the target. For example, to make a target of \$100 profit a bettor would wager \$50 at odds of 2 to 1. If the bet loses, the target becomes \$150. If the next bet is also at odds of 2 to 1, the wager therefore becomes \$75. This type of wagering can prove ruinous in the long run.
- Kelly – the optimum level to bet to maximise your future median bank level; the punter needs to estimate fair odds (in decimal odds) and then calculate the stake using:

$A = W - (1 - W) / (D - 1)$  Where: A = Percentage of the total bank to bet W = Percentage probability of winning (fair odds) D = Decimal odds (actual odds available)

- Martingale – A system based on staking enough each time to recover losses from previous bet(s) until one wins. It is usually applied to even-money bets such as red/black on roulette. The Martingale guarantees failure in the long run - it would only work if the bettor has an unlimited bankroll, the bookmaker has no limit on the size of bets and neither party ever dies. However, it can usually be used to gain a small win in the short run, given a bankroll large enough to survive a streak of five or six losses.

## List of notable wagers

The man who broke the bank at Monte Carlo  
Pascal's wager  
St. Petersburg paradox  
The wager in Around the World in Eighty Days  
Wager between John Pierpont Morgan and Hugh Cecil Lowther, 5th Earl of Lonsdale on whether a man could walk round the world and remain unidentified  
Wager between Julian Simon and Paul Ehrlich on commodity prices  
The annual Nenana Ice Classic, when the inhabitants of Alaska bet on when the ice will break on the Tanana River.  
Wager on Black hole information paradox: Stephen Hawking and Kip Thorne against John Preskill

## Associated word usage

- The English expression "I bet that \_\_\_\_", meaning "I consider it very probable that \_\_\_\_", need not carry any suggestion of the speaker intending to gamble.
- The English word hazard originated as Arabic az-zr or al-zr, which meant a type of dice game. Compare also the English word "dicey" meaning "risky".
- Scientists have dubbed certain random-number-based calculation algorithms the "Monte Carlo method".
- *Even money*, as a gambling term, describes a wagering proposition with even odds - in other words, if one loses a bet, one stands to lose the same amount of money that the winner of the bet would win (less, of course, the vigorish or "juice"). The term has come to have meaning in the wider English usage beyond actual gambling, however, as a way of describing an event whose occurrence is about as likely to occur as not, as in "It's even money that it will rain today". Compare 50 50.

## See also

- Online gambling
- Casino
- Online casino
- Casino game
- Casino Night
- Casino token
- Sports betting
  - Spread betting

- Arbitrage betting
- Dutch book
- Gambler's ruin
- Gambler's fallacy
- Mobile gambling

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## "Beatable" casino games

Poker | Blackjack | Video poker | Pai gow poker | Sports betting | Horse racing | Slot machine

## Horse racing

*Horse racing* is an equestrian sport which has been practiced over the centuries; the chariot races of Roman times are an early example, as is the contest of the steeds of the god Odin and the giant Hrungrir in Norse mythology. It is often inextricably associated with gambling.

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- 2 Horse racing in North America
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- 5 Pedigree
- 6 Betting

## **Forms of horse racing**

One of the principal forms of horse racing, which is popular in many parts of the world, is thoroughbred racing. Harness racing is also popular in the eastern United States and more popular than thoroughbred racing in the United Kingdom and Canada. Quarter horse and Arabian racing are also popular in the western United States.

The breeding, training and racing of horses in many countries is now a significant economic activity as, to a greater extent, is the gambling industry which is largely supported by it. Exceptional horses can win millions of dollars and make millions more by providing stud services, such as horse breeding.

## **Horse racing in North America**

The style of racing, the distances and the type of events varies very much by the country in which the race is occurring, and many countries offer different types of horse races.

In the United States, races can occur on flat surfaces of either dirt or grass, generally thoroughbred racing; other tracks offer quarter horse racing and harness racing, or combinations of these three types of racing. Racing with other breeds, such as Arabian horse racing, is found on a limited basis. American thoroughbred races are run at a wide variety of distances, most commonly from 4.5 furlongs (905 m) to 1½ miles (2414 m); with this in mind, breeders of thoroughbred race horses are able to breed horses to excel at a particular distance.

The high point of US horse racing has traditionally been the Kentucky Derby which, together with the Preakness Stakes and the Belmont Stakes, form the Triple Crown for three-year-olds. However, in recent years the Breeders' Cup races, held at the end of the year, have been challenging the Triple Crown events, held early in the year, as determiners of the three-year-old champion. They also have an important effect on the selection of other annual champions. The corresponding standard-bred event is the Breeders' Crown. There are also a Triple Crown of Harness Racing for Pacers and a Triple Crown of Harness Racing for Trotters.

American betting on horse racing is sanctioned and regulated by state governments, almost always through legalized parimutuel gambling. Thoroughbred horse racing in the United States has its own Hall of Fame for horses, jockeys, and trainers.

The most famous horses from Canada are Northern Dancer, who after winning the Kentucky Derby and Preakness went on to become the most successful Thoroughbred sire ever, and his son Nijinsky II. In Canada, however, harness racing is more popular than Thoroughbred racing. Woodbine Racetrack in Toronto, home of the Queen's Plate, Canada's premier thoroughbred stakes race, and the North America Cup, Canada's premier standard-bred stakes race, is the only race track in North America which stages Thoroughbred and Standard-bred (harness) meetings on the same day. The North America Cup has the largest purse of any Canadian horse race.

## Horse racing in Australia

Racing in Australasia has enjoyed great success with races such as the world famous Melbourne Cup, the so-called race that stops a nation, which has recently attracted many international entries. In Australia, the most famous horse was Phar Lap, who raced from 1928-1932 (though originally bred in New Zealand). In 2003-2005 Makybe Diva became the first and only horse to ever win the Melbourne Cup three times. In harness racing, Paleface Adios became a household name during the 1970s, while Cardigan Bay, a pacing horse from New Zealand, enjoyed great success at the highest levels of American harness racing in the 1960s.

## Horse racing in Europe

In the United Kingdom, there are races which involve obstacles (either hurdles or fences) called National Hunt racing and those which are unobstructed races over a given distance (flat racing). The UK has provided many of the sport's greatest ever jockeys, most notably Gordon Richards. See also United Kingdom horse-racing.

In Ireland, noted for its racing history, the Derby-winning thoroughbred Shergar was kidnapped on February 8, 1983. He has never been found. The multiple Gold Cup winner Best Mate also hails from Ireland, while the great Red Rum was bred there, before moving across the Irish Sea to be trained.

## Pedigree

While the attention of horse racing fans and the media is focused almost exclusively on the horse's performance on the racetrack, or for male horses possibly its success as a sire, little publicity is given to brood mares. Such is the case of La Troienne, one of the most important mares of the 20th century to whom many of the greatest thoroughbred champions, and dams of champions, can be traced.

## Betting

*For more details on this topic, see Gambling.*

## Handicapping

*Handicapping*, in sport and games, is the practice of assigning advantage through scoring compensation or other advantage given to different contestants to equalize the chances of winning. The word also applies to the various methods by which the advantage is calculated.

In principle, a more experienced player is disadvantaged in order to make it possible for a less experienced player to participate in the game or sport whilst maintaining fairness. Handicapping also refers to the various methods by which spectators can predict and quantify the results of a sporting match.

The term handicap derives from hand-in-cap, a popular seventeenth-century lottery game, where players placed their bets in a cap. Handicapping is used in scoring many games and competitive sports, including Go, chess, golf, bowling, polo, yacht racing, and track and field events. It also serves to foster wagering on horse racing events. Often, races, contests or tournaments where this practice is competitively employed are known as Handicaps.

The term is also applied to the practice of predicting the result of a competition, such as for purposes of betting against the point spread. A favored team that wins by less than the point spread still wins the game, but bets on that team lose.

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## **The practice in action**

### **Horse racing**

An impost is the weight that must be carried by a horse in a race. Horses carry lead weights during the course of a race as a form of handicap. Such a race is also sometimes termed a "handicap." These weights supplement a jockey's weight to give a horse his assigned impost. The jockeys use saddle pads with pockets called lead pads to hold the lead weights.

These riding weights are assigned by the racing secretary based on factors such as performances, distance so as to equalize the chances of the competitors.

The weight for age scale was introduced by Admiral Rous, a steward of the Jockey Club. In 1855 he was appointed public handicapper. In that role he introduced the weight-for-age scale.[1]

### **Predicting the Outcome of Races**

Thoroughbred handicapping is the art of predicting horses who have the greatest chance of winning a race, and profiting from these predictions at the horse races. The Daily Racing Form (DRF), a newspaper-style publication, is the most important tool of the handicapper or



horseplayer. The DRF details statistical information about each horse entered in a race, including detailed past performance results, lifetime records, amount of money earned, odds for the particular horse in each past race, and a myriad of other information available for casual or serious study.

The handicapping process can be simple or complex but usually includes the following elements prior to the race:

- 1) Study of the Daily Racing Form
- 2) Observing the horses' body language and behaviour in the paddock and/or post parade
- 3) Watching the tote board for the changing odds of each horse and thus for clues about how the betting public views a horse's chances of winning the upcoming race

"Trip Handicapping" takes place during the race and involves watching the horses (usually with binoculars) and noting relevant information about how a horse runs during that race.

Handicapping theory is possibly one of the most enigmatic theories in all of sports. Generally speaking, horseplayers consider the following elements when handicapping a horse race:

*Speed* Those horses who run the fastest, win the most races. The DRF lists times at certain call points of each race, and the lengths back from the at each call point. Speed handicappers compare race times to help ascertain which horses will most likely win the race. The DRF now contains a numerical summation of the speed that each horse ran in every race, called a Beyer speed figure. This number is generated through a method developed by Andrew Beyer, and described in his 1975 book *Picking Winners*. The Beyer speed figures takes into account the individual class of a race as well as how the racetrack was playing on a particular day to create an aggregate number for each horse. The basic error behind this approach is that the sample size each day which is used to create the track variant for the speed figure is very small, and hence subject to massive errors in standard deviation. For example, there may be only one turf (grass) race on a given day, and the Beyer system has to extract a variant for that race from a sample of one.

*Pace* Pace is probably the single most important factor in determining the outcome of a race. Pace handicappers classify each horse's running style (i.e. front runner, stalker, presser, closer) and then find contenders based on the predicted pace of today's race. The difficulty is that the jockey has control over where a horse is placed in a race and how fast that race goes in the early stages. This takes the prediction of pace for a given race out of the realm of mathematics and into the realm of mere speculation.

*Form* Those horses who looked "sharp" in their past race or past few races, win the most races. A sharp horse could have finished strongly, stayed among the leaders, finished "in the money" (1st, 2nd or 3rd) or recovered from a bad racing trip. Likewise, a horse showed dull form if it gave up, looked sluggish or chased the pack. Horses with sharp form have the lowest odds and hence return the least money per bet. Also, often horses will race off a "layoff." A layoff is a rest varying in length from usually two months to a year or more. In this case, workouts, horse appearance, and trainer patterns are the best guides to whether the horse is ready to run after a rest.

*Class* Horse races occur at different levels of competition. Generally, high caliber horses are entered in races with other high caliber horses and slower horses are entered in races

with other slower horses. But a horse can move up or down in class, depending on where the trainer decided to enter the horse based on the results of its last race. Note that the strength of the same class of race, such as a Maiden Special Weight race, will vary greatly from track to track, as well as from race to race at the same track, making this too an inexact determinant of class.

*Other Factors* Other factors affecting the outcome of a race are track condition, weather, weight that the horses have to carry, daily bias of the racing surface, and many more factors that the handicapper cannot know. (I know of a horse who ran poorly because of a noisy party that kept it awake the night before a race).

## Notes

1. ^ Wood, Greg, "End of an era as Jockey Club falls on own sword", The Guardian, Monday April 3, 2006. Retrieved on 2006-04-17.

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Categories: Horse racing

## "Unbeatable" casino games

Baccarat | Craps | Roulette | Keno | Casino war | Faro | Pachinko | Sic bo | Fan-Tan | Let It Ride | Three card poker | Four card poker | Red Dog | Pyramid poker | Caribbean stud poker | Spanish 21 | Texas Holdem Bonus Poker

## Non-casino gambling games

Bingo | Lottery | Mahjong | Dead pool | Dice games | Card games | Coin-tossing | Razzle

## Mahjong

Mahjong

Players	4
Age range	> Any
Setup time	2-5 minutes
Playing time	0-3 hours
Rules complexity	High
Strategy depth	Medium
Random chance	Yes
Skills required	Tactics, observation, memory

*Mahjong* (Traditional Chinese: 麻將; Simplified Chinese: 麻将; pinyin: Májàng; Cantonese: Mähjeung; or Chinese: 麻雀; pinyin: Máquè; Cantonese: Mähjeuk; other common English spellings include *mahjongg*, *majiang*, and hyphenated forms such as *mah-jong* or *mah-jongg*) is a game for four players that originated in China. It is a game of skill, strategy, intelligence, calculation and luck. Depending on the variation which is played, the amount of luck may vary from 20 to 80 percent. In China, Taiwan, Hong Kong, Japan, and other countries mahjong is often used for gambling. The Chinese character 麻 literally means "hemp general". In Cantonese an alternate writing, 雀, is more common (the same kanji are used in Japanese). In Cantonese this literally means "sparrow", while in Japanese it means "hemp sparrow", and is pronounced m-jan.

In English, in addition to Mahjong, the name of the game is variously written as Mah Jong, Mahjongg, Majong or simply "M-J"; there are other, less common variations as well. The spelling "Mah-Jongg" was trademarked by Joseph Park Babcock in 1920.

The closest Western analogue is probably the card game gin rummy. Both games involve selecting or discarding units (tiles in one case, cards in the other) to score points by forming groups or runs of similar units.

The game pieces (tiles) and scoring rules used in the game are slightly different depending on regional variations. The game play in general is very similar in all versions, as players compete to build sets including the highest point value.

The object of the game is to build complete suits (usually of threes) from either 13 or 16 tiles. The first person to achieve this goal is said to have won the game. The winning tile completes the set of either 14 or 17 tiles.

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## History

### Mahjong in China

One of the myths (probably originating in the West) regarding the origin of Mahjong suggests that Confucius[1], the great Chinese philosopher, had developed the game about 500 BC. The appearance of the game in various Chinese provinces coincides with Confucius' travels at the time he was teaching his new doctrines. The three dragon (Cardinal) tiles also agree with the three Cardinal virtues bequeathed by Confucius. Zhong ( lit. middle) the Red, Fa (lit. prosperity) the Green, Bai (lit. white) the White represent Benevolence, Sincerity, and Filial piety respectively. Confucius was said to be fond of birds, which would explain the name "Mahjong" (hemp bird).

Terms used in the play of the game Pong, Chee and Kong also give evidence to this theory. Confucius was of the Kong family, his full name being Kong-Qiu; he married a girl named Che and adopted the term Chee, meaning 'to connect', which Westerners corrupted into Chow.

Another possible theory implies that the game had been developed from existing Chinese card and domino games sometime around 1850. Some historians believe it was based on a Chinese card game called Mádiao (ㄣ) (also known as Ma Tiae, lit. Hanging Horse; or Yèzí (IP), lit. Leaf) in the early Ming dynasty.[2] This game was played with 40 paper cards similar in appearance to the cards used in the game Ya Pei. These forty cards, numbered 1 to 9 in four different suits along with four extra flower cards, are quite alike to the numbering of Mahjong tiles today. There is still a healthy debate about to whom the creation of the game should be attributed. One theory is that Chinese army officers serving during the Tai Ping Rebellion created the game to pass the time. Another theory is that a noble living in the Shanghai area created the game between 1870 and 1875. It is thought that around 1850 in the city of Ningpo two brothers had created Mahjong from the earlier game of Mádiao.

### Mahjong in the western world

By 1895, Stewart Culin, an American anthropologist, wrote a paper in which Mahjong was mentioned. This is the first known written account of Mahjong in any language other than Chinese. By 1910, there were written accounts in many languages including French and Japanese. An important English read was Joseph Park Babcock's Rules of Mah-Jongg, which, simplified in 1920, was simply known as the "red book". Although this was the earliest version of Mahjong that had been introduced to America, many of Babcock's simplifications are abandoned nowadays. The book introduced many similar English language rulebooks, with a large number of inaccurate rumors (including those of the National Mah Jongg League, the governing body of American Mahjong). A patently false claim was made that Mahjong had originated in ancient China in order to bring an air of mystique into the game. Ironically, many of these hearsay information about Mahjong's ancient origins are used today in much the same way for Mahjong solitaire, a much newer game.

The game was a sensation in America when it was imported from China in the 1920s, with the same Mahjong game taking on a number of trademarked names, such as Pung Chow or the Game of Thousand Intelligences. Part of Mahjong nights in America were to decorate rooms in Chinese style and dress like Chinese.[3] Several hit songs were also recorded during the mahjong fad, most notably Since Ma is Playing Mah Jong by Eddie Cantor[4].

American mahjong, which was mainly played by women during the time, grew from this craze, and in the 1930s, after many revisions of the rules (including some that were considered fundamentals in other variants, such as the notion of a standard hand) led to the formation of the National Mah Jongg League in 1937, along with the first American mahjong rulebook, *Maajh: The American Version of the Ancient Chinese Game*. Despite it being Chinese in origin and accepted by players of all racial backgrounds when first introduced by Babcock, American Mahjong is considered a Jewish game,[5] as many American mahjong players are of Jewish descent, and the NMJL was founded by Jewish players and considered a Jewish organization. But, at the same time, this traditional Chinese game was banned in its homeland in 1949, when the People's Republic of China was founded. The new Communist government forbade any gambling activities, which were regarded as symbols of capitalist corruption. After the Cultural Revolution, the game was revived, and once again Mahjong has become one of the favorite pastimes of the Chinese people.

## **Current development**

Today, the popularity and demographic of players of Mahjong differs greatly from country to country. In America, most players of American mahjong are women. In Japan, there has been a much greater emphasis on gambling before other le gender of the players is much less divided. There are also many governing bodies of Mahjong, many of them hosting exhibition games and tournaments. In Japan, video arcades have introduced Mahjong arcade machines that can be connected to others over the internet, as well as video games that allow a victorious player to view pictures of women in varying stages of undress.

Mahjong culture is still deeply ingrained in the Chinese community: Sam Hui wrote Cantopop songs, using mahjong as their themes. Chinese movies have always included scenes of mahjong games. Gambling movies have been filmed time and again in Hong Kong, and a recent sub-genre is the mahjong movie.

## Variants

There are many variations of mahjong. In many places, players observe one version, and are either often unaware of other variations, or claim that other variations are incorrect. Although many variations today differ only by scoring, there are several main variations of Mahjong.

- *Chinese Classical Mahjong* is the oldest variety of Mahjong, and was the version introduced to America in the 1920s under various names.
- *Hong Kong Mahjong* or *Cantonese Mahjong* is the most common form of Mahjong, differing in minor scoring details with the Chinese Classical variety.
- *Japanese Mahjong* is a standardized form of Mahjong in Japan, found prevalently in video games. In addition to scoring changes, the rules of riichi and dora are unique highlights of Japanese Mahjong.
- *Western Classical Mahjong* is a descendant of the version of Mahjong introduced by Babcock to America in the 1920s. The evolution of Mahjong in America led to American Mahjong. Today, this term largely refers to the Wright-Patterson rules, used in the U.S. military, and other similar American-made variants that are closer to the Babcock rules.
- *American Mahjong* is a form of Mahjong standardized by the National Mah Jongg League and the American Mah-Jongg Association that has the greatest divergence from traditional Mahjong, with the introduction of Joker tiles, the Charleston, as well as melds of five or more tiles, and eschewing the Chow and the notion of a standard hand. Because of this divergence, the NMJL and AMJA variations (which differ from each other by minor scoring differences) is commonly referred to as Mahjongg (with two Gs, possibly hyphenated). Purists of Mahjong claim that the divergence from standard Mahjong makes American Mahjong not a "true Mahjong", and thus should be considered a separate game in and of itself.

Other variants include *Fujian Mahjong* (with Dadi Joker 6~-), *Taiwanese Mahjong* (each player would have 16 tiles), *Vietnamese Mahjong* (with 16 different kinds of joker), and *Filipino Mahjong* (with Window Joker). [6]

## International rules

In 1998 the *China State Sports Commission*, in the interest of changing mahjong from an illegal gambling game to an approved 'healthy sport', published a new set of rules, now generally referred to as *Chinese Official rules* or *International Tournament rules*. The principles of the new, 'healthy' mahjong are: no gambling – no drinking – no smoking. On international tournaments, players are often grouped in teams to emphasize that mahjong from now on is considered a sport.

The new rules are highly pattern-based. The rulebook contains 80 combinations, based on patterns and scoring elements popular in both classic and modern regional Chinese variants. Some table practices of Japan have also been adopted. In order to go out, players

must score at least 8 points. Points for flower tiles (each flower is worth 1 point) may not be added until the player has scored 8 points. The winner of a game receives the score of his winning hand in points from the player who discarded the winning tile, plus 8 basic points from each player; in the case of zimo (self drawn win), he receives the value of his winning hand plus 8 points from all players.

The new rules were used in an international tournament first in Tokyo, where in 2002 the first World Championship in Mahjong was organized by the Mahjong Museum, the Japan Mahjong Organizing Committee and the city council of Ningbo, China, the town where it is believed mahjong most likely originated. One hundred players participated, mainly from Japan and China, but also from Europe and the United States. Miss Mai Hatsune from Japan became the first world champion. The following year saw the first annual China Majiang Championship, held in Hainan. The next two annual tournaments were held in Hong Kong and Beijing. Most players were Chinese, but players from other nations attended as well.

In 2005, in the Netherlands, the first Open European Mahjong Championship was held, with 108 players. The first prize was won by Masato Chiba from Japan.

Critics say that these new rules are unlikely to achieve great popularity outside of tournaments, since regional variations are well-entrenched. They also complain that the game is excessively complex, even by normal mahjong standards. But those who advocate the New Mahjong claim that it is not meant to replace existing rules, but only to act as a standard for international mahjong events.

## Equipment

Mahjong, can be played either with a set of Mahjong tiles, or less commonly, a set of Mahjong playing cards (sometimes spelled 'kards' to distinguish them from the list of standard hands used in American mahjong); one brand of Mahjong cards calls these Mhing). Playing cards are often used when travelling as it reduces space and is lighter than their tile counterparts, but are of a lower quality in return. In this article, "tile" will be used to denote both playing cards and tiles.

Many Mahjong sets will also include a set of chips or bone tiles for scoring, as well as indicators denoting the dealer and the wind of the round. Some sets may also include racks to hold tiles or chips (although in many sets the tiles are generally sufficiently thick so that they can stand on their own), with one of them being different to denote the dealer's rack.

Computer implementations of Mahjong are also available: these allow you to play against computer opponents, or against human opponents on the Internet.

A set of Mahjong tiles will usually differ from place to place. It usually has at least 136 tiles, most commonly 144, although sets originating from America or Japan will have more. Mahjong tiles include:

- *Circle suit*: named as each tile consists of a number of circles. Each circle is said to represent copper (tong) coins with a square hole in the middle.
- *Bamboo suit*: named as each tile (except the 1 Bamboo) consists of a number of bamboo sticks. Each stick is said to represent a string (suo) that holds a hundred coins.



- *Character suit*: named as each tile represents ten thousand (wan) coins, or one hundred strings of one hundred coins.
- *Wind tiles*: East, South, West, and North.
- *Dragon tiles*: red, green, and white. The term dragon tile is a western convention introduced by Joseph Park Babcock in his 1920 book introducing Mahjong to America. Originally, these tiles are said to have something to do with the Chinese Imperial Examination. The red tile (𠄎) means you pass the examination and thus will be appointed a government official. The green tile (𠄎) means, consequently you will become financially well off. The white tile (a clean board) means since you are now doing well you should act like a good, incorrupt official.
- *Flower tiles*: typically optional components to a set of mahjong tiles, often contain artwork on their tiles.

## Setting up the board

The following sequence is for setting up a standard Hong Kong (or Singapore) game. Casual or beginning players may wish to proceed directly to gameplay. Shuffling the tiles is needed before piling up.

## Prevailing Wind and Game Wind

To determine the *Player Game Wind* (𠄎 or 𠄎), each player throws three dice (two in some variants) and the player with the highest total is chosen as the *dealer* or the *banker* (𠄎). The dealer's Wind is now East, the player to the right of the dealer has South wind, the next player to the right has West and the fourth player has North. Game Wind changes after every round, unless the dealer wins. In some variations, the longer the dealer remains as the dealer, the higher the value of each hand.

The *Prevailing Wind* (𠄎) is always set to East when starting. It changes after the Game Wind has rotated around the board, that is, after each player has lost as the dealer.

A Mahjong set with Winds in play will usually include a separate Prevailing Wind marker (typically a die marked with the Wind characters in a holder) and a pointer that can be oriented towards the dealer to show Player Game Wind. In sets with racks, a rack may be marked differently to denote the dealer.

These winds are also significant as winds are often associated with a member of a Flower tile group, typically 1 with East, 2 with South, 3 with West, and 4 with North.

## Dealing tiles

All tiles are placed face down and shuffled. Each player then stacks a row of tiles two deep in front of him, the length of the row depending on the number of tiles in use:

- 136 tiles: 17 tiles for all players
- 144 tiles: 18 tiles for all players
- 148 tiles: 19 tiles for dealer and player opposite, 18 for rest
- 152 tiles: 19 tiles for all players

The dealer throws three dice and sums up the total. Counting counterclockwise so that the dealer is '1', a player's row is chosen. Starting at the right edge, 'sum' tiles are counted and shifted to the right.

The dealer now takes a block of 4 tiles to the left of the divide.

The player to the dealer's right takes 4 tiles to the left, and players (counterclockwise) take blocks of 4 tiles (clockwise) until all players have 12 tiles for 13-tile variations and 16 for 16-tile variations. In 13-tile variations, each player then takes one more tile to make a 13-tile hand. In practice, in order to speed up the dealing procedure, the dealer often takes one extra tile during the dealing procedure to start their turn.

The board is now ready and new tiles will be taken from the *wall* where the dealing left off, proceeding clockwise. In some special cases discussed later, tiles are taken from the other end of the wall, commonly referred to as the back end of the wall. In some variations, a group of tiles at the back end, known as the *dead wall*, is reserved for this purpose instead. In such variations, the dead wall may be visually separated from the main wall, but it is not required.

Unless the dealer has already won (see below), the dealer then discards a tile. The dealing process with tiles is ritualized and complex to prevent cheating. Casual players, or players with Mahjong playing cards, may wish to simply shuffle well and deal out the tiles with fewer ceremonial procedures.

## Charleston

In the American variations, it is required that before each hand begins, a *Charleston* is enacted. This consists of a procedure where three tiles are passed to the player on one's right, followed by three tiles passed to the player opposite, followed by three tiles passed to the left. The dealer can demand for a second Charleston, followed by an optional pass to the player across of one, two or three tiles. This is a distinctive feature of American-style Mahjong that may have been borrowed from card games.

## Gameplay

Each player is dealt either 13 tiles for 13-tile variations or 16 tiles for 16-tile variations.

A turn involves a player's drawing of a tile from the wall (or draw pile) and then placing it in his hand. The player then discards a tile onto the table. This signals the end of his turn, prompting the player to the right to make his move. As a form of courtesy, each player is

encouraged to announce loudly the name of the tile being discarded. Many variations require that discarded tiles be placed in an orderly fashion in front of the player, while some require that these be placed face down.

## **Flower tiles**

Flower tiles, when dealt or drawn, must be immediately replaced by a tile from the dead wall, or if no dead wall exists, the back end of the wall. They are immediately exposed (placed in view on the table on front of the player's tiles). At the start of each round, where two or more players may have flower tiles, flower tiles are replaced starting with the dealer and moving to the right. Flower tiles may or may not have point value; and in some variations, possession of all the flower tiles wins the round regardless of the actual contents of the hand.

In American Mahjong, however, Flower tiles are not instantly exposed and replaced, as they may be melded with other Flower tiles in the same group (in essence, they are treated as if they were another set of honor tiles) or be used as a requirement of a winning hand. Early versions of American Mahjong used Flower tiles as Joker tiles.

## **Joker tiles**

A feature of several variations, most notably American variations of Mahjong, is the notion of wild card or Joker tiles. They may be used as a substitute for any tile in a hand (or, in some variations, only tiles in melds). Depending on the variation, a player may replace a Joker tile that is part of an exposed meld belonging to any player with the tile it represents.

Rules governing discarding Joker tiles also exist: some variations permit the Joker tile to take on the identity of any tile, and others only permit the Joker tile to take on the identity of the previously discarded tile (or the absence of a tile, if it is the first discard).

Joker tiles may or may not have an impact on scoring, depending on the variation. Some special hands may require the use of Joker tiles (for example, to represent a "fifth tile" of a certain suited or honor tile).

In American Mahjong, it is illegal to pass jokers during the Charleston.

## **Melds**

When a player discards a tile, any other player may "call" or "bid" for it in order to complete a *meld* (a certain set of tiles) in his or her own hand. The disadvantage of doing this is that the player must now expose the completed meld to the other players, giving them an idea of what type of hand he or she is creating. This also creates an element of strategy, as in many variations, discarding a tile that allows another player to win the game causes the discarding player to lose points (or pay the winner more in a game for money).

Most variants (again, with the notable exception of American Mahjong) allow three types of melds. When a meld is declared through a discard, the player must state the type of the

meld to be declared and place the meld face-up. The player must then discard a tile, and play continues to the right. Because of this, turns may be skipped in the process.

- *Pong* or *Pung* (° pinyin peng, Japanese pon) - A pong or pung is a set of three identical tiles. In American Mahjong, where it is possible to meld Flower tiles, a pong may also refer to a meld of three of the four flower tiles in a single group. American Mahjong may also have hands requiring a knitted triplet - three tiles of identical rank but of three different suits.

- *Kong* (Ó/` pinyin gang, Japanese kan) - A kong is a set of four identical tiles. Because all other melds contain three tiles, a Kong must be immediately exposed when explicitly declared. If the fourth tile is formed from a discard, it is said to be an exposed Kong (Ó/`, pinyin ming gang). If all four tiles were formed in the hand, it is said to be a concealed Kong (—Ó/—`, pinyin an gang). It is also possible to form a Kong if the player has an exposed Pung and draws the fourth tile. In any case, a player must draw an extra tile from the back end of the wall (or from the dead wall, if it exists) and discard as normal. Play then continues to the right. Once a Kong is formed, it cannot be split up (say, if you wanted to instead use one tile as part of a Chow), and thus, it may be advantageous not to immediately declare a Kong.

- *Chow* (chi, in some versions shang) - A chow is a meld of three suited tiles in sequence. Unlike other melds, an exposed Chow may only be declared off the discard of the player on the left. American Mahjong does not have a formal chow (that is, you cannot declare chows), but some hands may require that similar sequences be constructed in the hand. Some American variations may also have the knitted sequence, where the three tiles are of three different suits. Sequences of higher length are usually not permissible (unless it forms more than one meld).

- *Eye* (jiang, in some versions yan, also Pair) - The pair, while not a meld (and thus, cannot be declared or formed with a discard), is the final component to the standard hand. It consists of two identical tiles.

It is to note that American mahjong hands may have tile constructions that are not melds, such as "NEWS" (having one of each wind). As they are not melds, they cannot be formed off discards, and in some variations, cannot be constructed in part or in whole by Joker tiles.

When two or more players call for a discarded tile, a player taking the tile to win the hand has precedence over all others, followed by pong or kong declarations, and lastly chows. In American Mahjong, where it may be possible for two players needing the same tile for melds, the meld of a higher number of identical tiles takes precedence. If two or more players call for a meld of the same precedence (or to win), the player closest to the right wins out (but the game may be declared an abortive draw if two or more players call a tile for the win, again depending on the variation). In particular, if a call to win overrides a call to form a kong, such a move is called robbing the Kong, and may give a scoring bonus.

There is generally an informal convention as to the amount of time allowed to make a call for a discarded tile before the next player takes its turn. In American Mahjong, this "window of opportunity" is explicitly stated in the rules, where in other variants, it is generally viewed

that when the next player's turn starts (ie. the tile leaves the wall), the opportunity has been lost.

## Ready hands

When a hand is one tile short of winning the hand is said to be a ready hand, or more figuratively, "on the pot". The player holding a ready hand is said to be waiting for certain tiles. It is common to be waiting for two or three tiles, and some variations award points for a hand that is waiting for one tile. In 13-tile Mahjong, the most amount of tiles that you can wait for is 13 (the thirteen terminals, a nonstandard special hand).

Some variations of Da Mahjong, most notably Japanese variations, allow a player to declare riichi (リーチ - sometimes known as reach as it is phonetically similar). A declaration of riichi is a promise that any tile drawn by the player is immediately discarded unless it constitutes a win. A player who declares riichi and wins usually receives a point bonus for their hand, while a player who declares riichi and loses is usually penalized in some fashion. When four players declare a riichi, the game is a draw. Declaring a nonexistent riichi is penalized.

## Draws

If only the dead wall remains and no one has won, the round is drawn (A@ liu ju, Japanese Ryuukyoku) or "goulashed". A new round begins, and depending on the variant, game wind may change.

## Abortive draws

In Japanese Mahjong, abortive draws (draws where the game is declared drawn while tiles are available) are possible. They can be declared under the following conditions:

- 九種牌 (kyuu shu yao kyuu tou pai): If, on a player's first turn, and with no melds declared, a player has nine different terminal or honor tiles, the player may declare the round to be drawn
- 三カガリ (san ka agari): If three players claim the same discard in order to win the round, the round is drawn.
- 四風子 (suu fonsu renda): If, on the first turn without any meld declarations, all four players discard the same wind tile, the hand is drawn.
- 四リーチ (suu ka riichi): If all four players declare riichi, the round is drawn.
- 四カガン (suu kan nagare): The round is drawn when the fourth kong is declared, unless all four kongs were declared by a single player. In this case, the round is drawn when another player declares a kong.

## Winning

A player wins the round (á, hu) by creating a standard mahjong hand (in Western Classical variants, this is known as creating a Mahjong, and the process of winning is called going Mahjong) which consists of a certain number of melds, four for 13-tile variations and five for 16-tile variations, and a pair. Some variations may also require that winning hands be of some point value.

Variations may also have special nonstandard hands that a player can make (in this sense, American Mahjong is a variant where only special hands exist).

## Turns and rounds

If the dealer wins the game, they will stay as the dealer. Otherwise, the player to the right becomes dealer and the player's wind becomes the Game Wind, in the sequence East-South-West-North.

After the wind returns to East (ie. each player has been the dealer), a *round* is complete and the Prevailing Wind will change, again in the sequence East-South-West-North. A full game of mahjong ends after 4 rounds, ie. when the North Prevailing Wind round is over. It is often regarded as an unlucky act to stop the gameplay at the West round, as West has a similar sound to death in Chinese.

## Scoring

Scoring in Mahjong involves points, with a monetary value for points agreed upon by players. Although in many variations scoreless hands are possible, many require that hands be of some point value in order to win the round.

While the basic gameplay is more or less the same throughout mahjong, the greatest divergence between variations lies in the scoring systems. Like the gameplay, there is a generalized system of scoring, based on the method of winning and the winning hand, from which Chinese and Japanese (among notable systems) base their roots. American mahjong generally has greatly divergent scoring rules (as well as greatly divergent gameplay rules).

Because of the large differences between the various systems of scoring (especially for Chinese variants), groups of players will often agree on particular scoring rules before a game. Like with gameplay, many attempts have been made to create an international standard of scoring, but most are not widely accepted.

*Points* (terminology of which differs from variation to variation) are obtained by matching the winning hand and the winning condition with a specific set of criteria, with different criteria scoring different values. Some of these criteria may be subsets of other criteria (for example, having a meld of one Dragon versus having a meld of all of them), and in these cases, only the most general criteria is scored. The points obtained may be translated into scores for each player using some (typically exponential) functions. When gambling

with mahjong, these scores are typically directly translated into sums of money. Some criteria may be also in terms of both points and score.

## Trivia

Little known to most players, the suits of the tiles are money-based. In ancient China, the copper coins had a square hole in the center. People passed a rope through the holes to tie coins into strings. These strings are usually in groups of 100 coins called *diao* ( or variant ) or 1000 coins called *guan* («). Mahjong's connection to the ancient Chinese currency system is consistent with its alleged derivation from the game named *ma diao* (ㄣ ).

In the mahjong suits, the coppers represent the coins; the ropes are actually strings of 100 coins; and the character myriad represents 10,000 coins or 100 strings. When a hand received the maximum allowed winning of a round, it is called *man guan* (ㄩ«, lit. full string of coin.)

A Mahjong game is described in *The Murder of Roger Ackroyd* by Agatha Christie, ending with the very unusual event of a player getting a complete winning hand on the initial draw. This success makes the character unduly talkative, which leads to significant plot developments.

British superspy James Bond plays a dangerous game of mahjong in *Zero Minus Ten*, a suspense novel by Raymond Benson.

In the 1940 film *Charlie Chan's Murder Cruise*, the title character remarks, In China, mahjong very simple; in America very complex - like modern life.

The character that translates to "centre" is found on the super-hero suit worn by The Greatest American Hero. Since the character is typically painted red, the tile is commonly called "red centre." For this reason the HongKong TV station TVB named the Chinese-dubbed *The Greatest American Hero* "the Flying Red Centre Hero" [Ů)-à]. (ABC, 1981-83).

Mahjong is featured in Amy Tan's novel *The Joy Luck Club*, and its 1993 film adaptation.

Mahjong has always appeared in one way or another in Hong Kong made movies or TV drama, since it is considered as a "daily life" of a Chinese lifestyle. Two recent Cantonese movies, *Fat Choi Spirit* and *Kung Fu Mahjong*, parody the game's subculture.

The tile that translates to "Red Dragon" is used as a major plot point in the same titled Thomas Harris novel, as well as its two film adaptations, *Manhunter* and *Red Dragon*.

Graham Edwards' *Stone* trilogy features mahjong prominently. Much of the books' imagery focuses around the mahjong symbols, and one character owns a set of mahjong tiles, on which she paints throughout the trilogy.

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## Footnotes

1. ^ Butler, Jonathan. The Tiles of Mah Jong. 1996.
2. ^ Yèzí in Ming Dynasty
3. ^ Chapter 16, Made in America, Bill Bryson.
4. ^ Eddie Cantor and his Mahjong song
5. ^ Why are so many players of American mah-jongg Jewish?
6. ^ Variants of Mahjong in Chinese Wikipedia

## Card games

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A *card game* is any game using playing cards, either traditional or game-specific.

## The deck or pack

A card game is played with a *deck* (common in the US), or *pack* (common in the UK), of cards intended for that game. The deck consists of a fixed number of pieces of printed cardboard known as cards. The cards in a deck are identical in size and shape. Each card has two sides, the face and the back. The backs of the cards in a deck are indistinguishable. The faces of the cards in a deck may all be unique, or may include duplicates, depending on the game. In either case, any card is readily identifiable by its face. The set of cards that make up the deck are known to all of the players using that deck.

Although many games have special decks of cards, the 52 card pack is known as the standard deck, and is used in a wide variety of games. It consists of 52 cards, each card having a suit (one of spades, hearts, diamonds and clubs) and a rank (a number between 2 and 10, or one of jack, queen, king and ace). For any combination of one suit and one rank, there is exactly one card in the standard deck having that suit and rank. In addition to games that use the standard deck, there are also games that use some modification of the standard deck, for example excluding all cards of rank lower than some rank (e.g., a pinochle deck), or adding a special card, joker, to the standard deck. Many European regions have their own variants of the standard deck having different names and imagery for suits, or having a different set of ranks in the cards.

There are also some card games that require multiple standard decks. In this scenario, a "deck" refers to a set of 52 cards or a single deck, while a "pack" or "shoe" (Blackjack) refers to the collection of "decks" as a whole.

## The deal

Dealing is done either clockwise or counterclockwise. If this is omitted from the rules, then it should be assumed to be:

- clockwise for games from North America, North and West Europe and Russia;
- counterclockwise for South and East Europe and Asia, also for Swiss games and all Tarot games.

A player is chosen to deal. That person takes all of the cards in the pack, stacks them together so that they are all the same way up and the same way round, and shuffles them. There are various techniques of shuffling, all intended to put the cards into a random order. During the shuffle, dealer holds the cards so that he or she and the other players cannot see any of their faces.

Shuffling should continue until the chance of a card remaining next to the one that was originally next to is small. In practice, many dealers do not shuffle for long enough to achieve this.

After the shuffle, the dealer offers the deck to another player to cut the deck. If the deal is clockwise, this is the player on her right; if counter-clockwise, it is the player on her left. The invitation to cut is made by placing the pack, face downward, on the table near the player who is to cut: who then lifts the upper portion of the pack clear of the lower portion and places it alongside. The formerly lower portion is then replaced on top of the formerly upper portion.

The dealer then deals the cards. This is done by dealer holding the pack, face-down, in one hand, and removing cards from the top of it with her other hand to distribute to the players, placing them face-down on the table in front of the players to whom they are dealt. The rules of the game will specify the details of the deal. It normally starts with the players next to the dealer in the direction of play (left in a clockwise game; right in an anticlockwise one), and continues in the same direction around the table. The cards may be dealt one at a time, or in groups. Unless the rules specify otherwise, assume that the cards are dealt one at a time. Unless the rules specify otherwise, assume that all the cards are dealt out; but in many games, some remain undealt, and are left face down in the middle of the table, forming the talon, skat, or stock. The player who received the first card from the deal may be known as eldest hand, or as forehand.

The set of cards dealt to a player is known as his or her hand.

Throughout the shuffle, cut, and deal, the dealer should arrange that the players are unable to see the faces of any of the cards. The players should not try to see any of the faces. Should a card accidentally become exposed (visible to all), then normally any player can demand a redeal - that is, all the cards are gathered up, and the shuffle, cut and deal are repeated. Should a player accidentally see a card (other than one dealt to herself) she should admit this.

It is dishonest to try to see cards as they are dealt, or to take advantage of having seen a card accidentally.

When the deal is complete, all players pick up their cards and hold them in such a way that the faces can be seen by the holder of the cards but not the other players. It is helpful to fan one's cards out so that (if they have corner indices) all their values can be seen at once. In most games it is also useful to sort one's hand, rearranging the cards in a way appropriate to the game. For example in a trick taking game it is easier to have all one's cards of the same suit together, whereas in a rummy game one might sort them by rank or by potential combinations.

## **The rules**

A new card game starts in a small way, either as someone's invention, or as a modification of an existing game. Those playing it may agree to change the rules as they wish. The rules that they agree on become the "house rules" under which they play the game. A set of house rules may be accepted as valid by a group of players wherever they play. It may also be accepted as governing all play within a particular house, café, or club.

When a game becomes sufficiently popular, so that people often play it with strangers, there is a need for a generally accepted set of rules. This is often met by a particular set of house rules becoming generally recognised. For example, when whist became popular in 18th-century England, players in the Portland Club agreed on a set of house rules for use on its premises. Players in some other clubs then agreed to follow the "Portland Club" rules, rather than go to the trouble of codifying and printing their own sets of rules. The Portland Club rules eventually became generally accepted throughout England.

There is nothing "official" about this process. If you decide to play whist seriously, it would be sensible to learn the Portland Club rules, so that you can play with other people who already know these rules. But if you only play whist with your family, you are likely to ignore these rules, and just use what rules you choose. And if you play whist seriously with a group of friends, you are still perfectly free to devise your own set of rules, should you want to.

It is sometimes said that the "official" or "correct" sets of rules governing a card game are those "in Hoyle". Edmond Hoyle was an 18th-century Englishman who published a number of books about card games. His books were popular, especially his treatise on how to become a good whist player. After (and even before) his death, many publishers have taken advantage of his popularity by placing his name on their books of rules. The presence of his name on a rule book has no significance at all. The rules given in the book may be no more than the opinion of the author.

If there is a sense in which a card game can have an "official" set of rules, it is when that card game has an "official" governing body. For example, the rules of tournament bridge are governed by the World Bridge Federation, and by local bodies in various countries such as the ACBL in the USA, and the EBU in England. The rules of skat in Germany are governed by the Deutsche Skatverband which publishes the Skatordnung. The rules of French tarot are governed by the Fédération Française de Tarot. But there is no compulsion to follow the rules put out by these organisations. If you and your friends decide to play a game by a set of rules unknown to the game's official body, you are doing nothing illegal.

Many widely-played card games have no official regulating body. An example is Canasta.

## **Rule infractions**

An infraction is any action which is against the rules of the game, such as playing a card when it is not one's turn to play and the accidental exposure of a card.

In many official sets of rules for card games, the rules specifying the penalties for various infractions occupy more pages than the rules specifying how to play correctly. This is tedious, but necessary for games that are played seriously. Players who intend to play a card game at a high level generally ensure before beginning that all agree on the penalties to be used. When playing privately, this will normally be a question of agreeing house rules. In a tournament there will probably be a tournament director who will enforce the rules when required and arbitrate in cases of doubt.

If a player breaks the rules of a game deliberately, this is cheating. Most card players would refuse to play cards with a known cheat. The rest of this section is therefore about accidental infractions, caused by ignorance, clumsiness, inattention, etc.

As the same game is played repeatedly among a group of players, precedents build up about how a particular infraction of the rules should be handled. E.G. "Sheila just led a card when it wasn't her turn. Last week when Jo did that, we agreed ... etc.". Sets of such precedents tend to become established among groups of players, and to be regarded as part of the house rules. Sets of house rules become formalised, as described in the previous section. Therefore, for some games, there is a "proper" way of handling infractions of the rules. But for many games, without governing bodies, there is no standard way of handling infractions.

In many circumstances, there is no need for special rules dealing with what happens after an infraction. As a general principle, the person who broke a rule should not benefit by it, and the other players should not lose by it. An exception to this may be made in games with fixed partnerships, in which it may be felt that the partner(s) of the person who broke a rule should also not benefit. The penalty for an accidental infraction should be as mild as reasonable, consistent with there being no possible benefit to the person responsible.

## **Types of card games**

### **Trick-taking games**

- 500
- Barbu
- Bridge
  - Écarté
- Euchre
- Hearts
- Hokm
- Oh Hell
- Pinochle
- Piquet
  - ROOK
- Sheepshead
  - Skat
- Spades
- Sixty-three
- Sueca (game)
- Whist
- Wizard

## **Rummy-style games**

- 500 Rum
- Canasta
- Concentration
- Conquian - the fore-runner of modern rummy games, sometimes called Cooncan.
- Desmoche
- Five Crowns
- Gin rummy
- Go Fish
- Haihowak
- Happy Families
- Kemps
- Phase 10
- Robbers' rummy
- Rummy
- Seven Bridge
- Shanghai rum
- Spoons
- Steal the old man's pack
- Tonk
- Tri
- Wyatt Earp

## **Casino or gambling card games**

### **See also** casino or gambling

- 3-card poker
- Baccarat
- Bingo
- Blackjack
- Blind Hookey
- Bourré
- Caribbean stud poker
- Casino war
  - Cribbage
- Poker
  - Primero
- Red dog
- Thirty-one
- Three card brag

## **Solitaire (or Patience) games**

- Ace of the Pile
- Baker's Dozen (solitaire)  
Calculation  
Concentration  
FreeCell  
Kings in the Corner (multi-player)  
Klondike  
Nertz (multiplayer)  
Russian Bank  
Solitaire Showdown

## **Shedding games**

- Bartok / Bartog
- Big Two  
Bullshit  
California Speed  
Chase the Ace/Old Maid  
Craits  
Crazy Eights  
Durak  
Eleusis  
Mao  
President  
Q Squared Joe or Q2J  
Shichi Narabe  
Shithead  
Spit / Speed  
Spite and Malice  
Tien len  
UNO

## **Accumulating games**

- Beggar-My-Neighbour
- Egyptian Ratscrew  
Ratsgroup  
Screw Your Neighbor  
Seven Spades  
Slapjack

Snap  
Top Trumps  
War

### **Fishing Games**

- Casino  
Pasur

### **Multi-genre games**

- Eleusis  
Poke  
Skitgubbe  
Tichu  
Tripoli

### **Collectible card games (CCG's)**

- Duel Masters  
Magic: The Gathering  
Pokémon  
Yu-Gi-Oh! Trading Card Game  
Harry Potter Trading Card Game  
QuickStrike  
AVATAR

### **Other card games**

- 1000 Blank White Cards  
Blitz  
Bohnanza  
Chez Geek  
Chrononauts  
Flinch  
Fluxx  
GOLF  
Gother Than Thou  
Grass  
Hanafuda

Illuminati  
 Karuta  
 Obake karuta  
 LeCardo  
 Lost Cities  
 Lucky Seven  
 Mille Bournes  
 Munchkin  
 Mus  
 Numero  
 Pens  
 Pit  
 Pits  
 San Juan (game)  
 Scopa  
 Scopone  
 Set  
 Sevens  
 Sheepshead  
 Strat-o-Matic Series

## **Fictional card games**

- Cripple Mr Onion - from the Discworld book series

Diamondback - from the Cerebus comics  
 Double Fanucci - from the Zork series  
 Dragon Poker - from the MythAdventures novels  
 Fizzbin - from the original Star Trek  
 Pazaak - from the Knights of the Old Republic video game  
 Pyramid - from the Battlestar Galactica series  
 Sabacc - from the Star Wars universe  
 Tall Card - from the Firefly television series  
 Exploding Snap - from the Harry Potter book series  
 Montana Red Dog - from the TV series Alias Smith and Jones  
 Watch Me - from the Dark Tower book series  
 Triple Triad- from the Final Fantasy VIII video game  
 Tetra Master - from the Final Fantasy IX video game  
 Sphere Break - from the Final Fantasy X-2 video game  
 Chop - from the Wheel of Time literary series

## **Pranks**



- 52 Pickup

## See also

- Playing card

# Playing card

A *playing card* is a typically hand-sized piece of heavy paper or thin plastic used for playing card games. A complete set of cards is a *pack* or *deck*. Playing cards are often used as props in magic tricks, as well as occult practices such as cartomancy, and a number of card games involve (or can be used to support) gambling. As a result, their use sometimes meets with disapproval from some religious groups (such as a minority of conservative Christians). They are also a popular collectible (as distinct from the cards made specifically for collectible trading card games). Specialty and novelty decks are commonly produced for collectors, often with political, cultural, or educational themes. One side of each card (the "front" or "face") carries markings that distinguish it from the others and determine its use under the rules of the particular game being played, while the other side (the "back") is identical for all cards, usually a plain color or abstract design. In most games, the cards are assembled into a "deck" (or "pack"), and their order is randomized by a procedure called "shuffling" to provide an element of chance in the game.

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## History

## Early history

The origin of playing cards is obscure, but it is almost certain that they began in China after the invention of paper. Ancient Chinese "money cards" have four "suits": coins (or cash), strings of coins (which may have been misinterpreted as sticks from crude drawings), myriads of strings, and tens of myriads. These were represented by ideograms, with numerals of 2–9 in the first three suits and numerals 1–9 in the "tens of myriads". Wilkinson suggests in *The Chinese origin of playing cards* that the first cards may have been actual paper currency which were both the tools of gaming and the stakes being played for. The designs on modern Mahjong tiles and dominoes likely evolved from those earliest playing cards. The Chinese word pái (牌) is used to describe both paper cards and gaming tiles. An Indian origin for playing cards has been suggested by the resemblance of symbols on some early European decks to the ring, sword, cup, and baton classically depicted in the four hands of Indian statues. This is an area that still needs research. The time and manner of the introduction of cards into Europe are matters of dispute. The 38th canon of the council of Worcester (1240) is often quoted as evidence of cards having been known in England in the middle of the 13th century; but the games *de rege et regina* there mentioned are now thought to more likely have been chess. If cards were generally known in Europe as early as 1278, it is very remarkable that Petrarch, in his dialogue that treats gaming, never once mentions them. Boccaccio, Chaucer and other writers of that time specifically refer to various games, but there is not a single passage in their works that can be fairly construed to refer to cards. Passages have been quoted from various works, of or relative to this period, but modern research leads to the supposition that the word rendered cards has often been mistranslated or interpolated.

It is likely that the ancestors of modern cards arrived in Europe from the Mamelukes of Egypt in the late 1300s, by which time they had already assumed a form very close to those in use today. In particular, the Mameluke deck contained 52 cards comprising four "suits": polo sticks, coins, swords, and cups. Each suit contained ten "spot" cards (cards identified by the number of suit symbols or "pips" they show) and three "court" cards named *malik* (King), *n'ib malik* (Viceroy or Deputy King), and *thn+ n'ib* (Second or Under-Deputy). The Mameluke court cards showed abstract designs not depicting persons (at least not in any surviving specimens) though they did bear the names of military officers. A complete pack of Mameluke playing cards was discovered by L.A. Mayer in the Topkapi Sarayi Museum, Istanbul, in 1939 [1]; this particular complete pack was not made before 1400, but the complete deck allowed matching to a private fragment dated to the twelfth or thirteenth century. There is some evidence to suggest that this deck may have evolved from an earlier 48-card deck that had only two court cards per suit, and some further evidence to suggest that earlier Chinese cards brought to Europe may have travelled to Persia, which then influenced the Mameluke and other Egyptian cards of the time before their reappearance in Europe.

It is not known whether these cards influenced the design of the Indian cards used for the game of Ganjifa, or whether the Indian cards may have influenced these. Regardless, the

Indian cards have many distinctive features: they are round, generally hand painted with intricate designs, and comprise more than four suits (often as many as twelve).

### **Spread across Europe and early design changes**

In the late 1300s, the use of playing cards spread rapidly across Europe. The first widely accepted references to cards are in 1371 in Spain, in 1377 in Switzerland, and, in 1380, they are referenced in many locations including Florence, Paris, and Barcelona. A Paris ordinance dated 1369 does not mention cards; its 1377 update includes cards. In the account-books of Johanna, duchess of Brabant, and her husband, Wenceslaus of Luxemburg, there is an entry dated May 14, 1379 as follows: "Given to Monsieur and Madame four peters, two forms, value eight and a half moutons, wherewith to buy a pack of cards". An early mention of a distinct series of playing cards is the entry of Charles or Charbot Poupart, treasurer of the household of Charles VI of France, in his book of accounts for 1392 or 1393, which records payment for the painting of three sets or packs of cards, which were evidently already well known.

It is clear that the earliest cards were executed by hand, like those designed for Charles VI. However, this was quite expensive, so other means were needed to mass-produce them. It is possible that the art of wood engraving, which led to the art of printing, developed because of the demand for implements of play. If the assumption is true that the cards of that period were printed from wood blocks, the early card makers or cardpainters of Ulm, Nuremberg, and Augsburg, from about 1418 to 1450, were most likely also wood engravers.

Many early woodcuts were colored using a stencil, so it would seem that the art of depicting and coloring figures by means of stencil plates was well known when wood engraving was first introduced. No playing cards engraved on wood exist whose creation can be confirmed as earlier than 1423 (the earliest-dated wood engraving generally accepted). However, in this period professional card makers were established in Germany, so it is probable that wood engraving was employed to produce cuts for sacred subjects before it was applied to cards, and that there were hand-painted and stencilled cards before there were wood engravings of saints. The German Briefmaler or card-painter probably progressed into the wood engraver; but there is no proof that the earliest wood engravers were the card-makers.

The Europeans experimented with the structure of playing cards, particularly in the 1400s. Europeans changed the court cards to represent European royalty and attendants, originally "king", "chevalier", and "knave" (or "servant"). Queens were introduced in a number of different ways. In an early surviving German pack (dated in the 1440s), Queens replace Kings in two of the suits as the highest card. Throughout the 1400s, 56-card decks containing a King, Queen, Knight, and Valet were common. Suits also varied; many makers saw no need to have a standard set of names for the suits, so early decks often had different suit names (typically 4 suits, although 5 suits also had been common and other structures are also known). The cards manufactured by German printers used in the later standard the suits of hearts, bells, leaves, and acorns still present in Eastern and Southeastern German decks today used for Skat and other games, in the very early time suits took many vary variations, however. Later Italian and Spanish cards of the 15th century used swords, batons,

cups, and coins. It is likely that the Tarot deck was invented in Italy at that time, though it is often mistakenly believed to have been imported into Europe by Gypsies (see detailed studies, also the article Tarot). While originally (and still in some places, notably Europe) used for the game of Tarocchi, the Tarot deck today is more often used for cartomancy and other occult practices. This probably came about in the 1780s, when occult philosophers mistakenly associated the symbols on Tarot cards with Egyptian hieroglyphs.

The four suits (hearts, diamonds, spades, clubs) now used in most of the world originated in France, approximately in 1480. These suits have generally prevailed because decks using them could be made more cheaply; the former suits were all drawings which had to be reproduced by woodcuts, but the French suits could be made by stencil. The trèfle, so named for its resemblance to the trefoil leaf, was probably copied from the acorn; the pique similarly from the leaf of the German suits, while its name derived from the sword of the Italian suits (alternative opinion: derived from the German word "Spaten", which is a tool like "Schippe" and in optical sense similar to the Pique-sign; "Schippe" is a German slang-name for Pique. In England the French suits were used, and are named hearts, clubs (corresponding to trèfle, the French symbol being joined to the Italian name, bastoni), spades (corresponding to the French pique, but having the Italian name, spade = sword) and diamonds. This confusion of names and symbols is accounted for by Chatto thus:

"If cards were actually known in Italy and Spain in the latter part of the 14th century, it is not unlikely that the game was introduced into this country by some of the English soldiers who had served under Hawkwood and other free captains in the wars of Italy and Spain. However this may be, it seems certain that the earliest cards commonly used in this country were of the same kind, with respect to the marks of the suits, as those used in Italy and Spain."

Court cards have likewise undergone some changes in design and name. Early court cards were elaborate full-length figures; the French in particular often gave them the names of particular heroes and heroines from history and fable. A prolific manufacturing center in the 1500s was Rouen, which originated many of the basic design elements of court cards still present in modern decks. It is likely that the Rouennais cards were popular imports in England, establishing their design as standard there, though other designs became more popular in Europe (particularly in France, where the Parisian design became standard). There is some speculation that the common King of Hearts was designed as a tribute to Donatello's Judith and Holophernes.'

Rouen courts are traditionally named as follows: the kings of spades, hearts, diamonds, and clubs are David, Alexander, Caesar and Charles (Charlemagne), respectively. The knaves (or "jacks"; French "valet") are Hector (prince of Troy), La Hire (comrade-in-arms to Joan of Arc), Ogier (a knight of Charlemagne) and Judas Maccabeus (who led the Jewish rebellion against the Syrians). The queens are Pallas (warrior goddess; equivalent to the Greek Athena or Roman Minerva), Rachel (biblical mother of Joseph), Argine (the origin of which is obscure; it is an anagram of regina, which is Latin for queen) and Judith (from Book of Judith). Parisian tradition uses the same names, but assigns them to different suits: the kings of spades, hearts, diamonds, and clubs are David, Charles, Caesar, and Alexander; the queens are Pallas, Judith, Rachel, and Argine; the knaves are Ogier, La Hire, Hector, and Judas Maccabee. Oddly, the Parisian names have become more common in modern use, even with cards of Rouennais design. (See the Nine Worthies for another medieval collection of knightly heroes.)

## Later design changes

In early games the kings were always the highest card in their suit. However, as early as the late 1400s special significance began to be placed on the nominally lowest card, now called the Ace, so that it sometimes became the highest card and the Two, or Deuce, the lowest. This concept may have been hastened in the late 1700s by the French Revolution, where games began being played "ace high" as a symbol of lower classes rising in power above the royalty. The term "Ace" itself comes from a dicing term in Anglo-Norman language, which is itself derived from the Latin *as* (the smallest unit of coinage). Another dicing term, *trey* (3), sometimes shows up in playing card games.

Corner and edge indices appeared in the mid-1800s, which enabled people to hold their cards close together in a fan with one hand (instead of the two hands previously used). Before this time, the lowest court card in an English deck was officially termed the Knave, but its abbreviation ("Kn") was too similar to the King ("K"). However, from the 1600s on the Knave had often been termed the Jack, a term borrowed from the game All Fours where the Knave of trumps is termed the Jack. All Fours was considered a low-class game, so the use of the term Jack at one time was considered vulgar. The use of indices changed the formal name of the lowest court card to Jack.

This was followed by the innovation of reversible court cards. Reversible court cards meant that players would not be tempted to make upside-down court cards right side up. Before this, other players could often get a hint of what other players' hands contained by watching them reverse their cards. This innovation required abandoning some of the design elements of the earlier full-length courts.

The joker is an American innovation. Created for the Alsatian game of Euchre, it spread to Europe from America along with the spread of Poker. Although the joker card often bears the image of a fool (possibly derived from the stereotypical village idiot), which is one of the images of the Tarot deck, it is not believed that there is any relation. In contemporary decks, one of the two jokers is often more colorful or more intricately detailed than the other, though this feature is not used in most card games. The two jokers are often differentiated as "Big" and "Little," or more commonly, "Red" and "Black." In many card games the jokers are not used. Unlike face cards, the design of jokers varies widely. Many manufacturers use them to carry trademark designs.

In the twentieth century, a means for coating cards with plastic was invented, and has taken over the market, producing a durable product. An example of what the old cardboard product was like is documented in Buster Keaton's silent comedy *The Navigator*, in which the forlorn comic tries to shuffle and play cards during a rainstorm.

## Alleged symbolism

Popular legend holds that the composition of a deck of cards has religious, metaphysical or astronomical significance: typical numerological elements of the explanation are that the four suits represent the four seasons, the 13 cards per suit are the 13 phases of the lunar

cycle, black and red are for day and night, the 52 cards of the deck (joker excluded) symbolizes the number of weeks in a year, and finally, if the value of each card is added up — and 1 is added, which is generally explained away as being for a single joker — the result is 365, the number of days in a year. The context for these stories is sometimes given to suggest that the interpretation is a joke, generally being the purported explanation given by someone caught with a deck of cards in order to suggest that their intended purpose was not gambling (Urban Legends Reference Pages article).

## Playing cards today

### Anglo-American

The primary deck of fifty-two playing cards in use today, called *Anglo-American playing cards*, includes thirteen ranks of each of the four French suits, spades (♠), hearts (♥), diamonds (♦) and clubs (♣), with reversible Rouennais court cards. Each suit includes an ace, depicting a single symbol of its suit; a king, queen, and jack, each depicted with a symbol of its suit; and ranks two through ten, with each card depicting that many symbols (pips) of its suit. Two (sometimes one or four) Jokers, often distinguishable with one being more colorful than the other, are included in commercial decks but many games require one or both to be removed before play. Modern playing cards carry index labels on opposite corners (rarely, all four corners) to facilitate identifying the cards when they overlap.

The fanciful design and manufacturer's logo commonly displayed on the Ace of Spades began under the reign of James I of England, who passed a law requiring an insignia on that card as proof of payment of a tax on local manufacture of cards. Until August 4, 1960, decks of playing cards printed and sold in the United Kingdom were liable for taxable duty and the Ace of Spades carried an indication of the name of the printer and the fact that taxation had been paid on the cards. The packs were also sealed with a government duty wrapper.

Though specific design elements of the court cards are rarely used in game play, a few are notable. The Jack of Spades and Jack of Hearts are drawn in profile, while the rest of the courts are shown in full face (the exception being the King of Diamonds), leading to the former being called the "one-eyed" jacks. When deciding which cards are to be made wild in some games, the phrase, "acey, deucey, one-eyed jack," is sometimes used, which means that aces, twos, and the one-eyed jacks are all wild. Another such variation, "deuces, aces, one-eyed faces," is used to indicate aces, twos, the Jack of Hearts, the Jack of Spades, and the King of Diamonds are wild. The King of Hearts is shown with a sword behind his head, leading to the nickname "suicide king". The King of Diamonds is armed with an ax while the other three kings are armed with swords. The King of Diamonds is sometimes referred to as "the man with the ax" because of this. The Ace of Spades, unique in its large, ornate spade, is sometimes said to be the death card, and in some games is used as a trump card. The Queen of Spades appears to hold a scepter and is sometimes known as "the bedpost queen."

There are theories about who the court cards represent. For example, the Queen of Hearts is believed by some to be a representation of Elizabeth of York - the Queen consort of King Henry VII of England. The United States Playing Card Company suggests that in the past, the King of Hearts was Charlemagne, the King of Diamonds was Julius Caesar, the King of Clubs was Alexander the Great, and the King of Spades was the Biblical King David. However the Kings, Queens and Jacks of standard Anglo/American cards today do not represent anyone. They stem from designs produced in Rouen before 1516 and by 1540-67 these Rouen designs show well-executed pictures in the court cards with the typical court costumes of the time. In these early cards the Jack of Spades, Jack of Hearts and the King of Diamonds are shown from the rear, with their heads turned back over the shoulder so that they are seen in profile. However the Rouen cards were so badly copied in England that the current designs are gross distortions of the originals.

Other oddities such as the lack of a moustache on the King of Hearts also have little significance. The King of Hearts did originally have a moustache but it was lost by poor copying of the original design. Similarly the objects carried by the court cards have no significance. They merely differentiate one court card from another and have also become distorted over time.

The most common sizes for playing cards are poker size ( $2\frac{1}{2}$ in  $\times$   $3\frac{1}{2}$ in; 62 mm  $\times$  88 mm, or B8 size according to ISO 216) and bridge size ( $2\frac{1}{4}$ in  $\times$   $3\frac{1}{2}$ in, approx. 56 mm  $\times$  88 mm), the latter being more suitable for games such as bridge in which a large number of cards must be held concealed in a player's hand. Interestingly, in most casino poker games, the bridge sized card is used. Other sizes are also available, such as a smaller size (usually  $1\frac{3}{4}$ in  $\times$  2]in, approx. 44 mm  $\times$  66 mm) for solitaire and larger ones for card tricks.

Some decks include additional design elements. Casino blackjack decks may include markings intended for a machine to check the ranks of cards, or shifts in rank location to allow a manual check via inlaid mirror. Many casino decks and solitaire decks have four indices instead of the usual two. Many decks have large indices, largely for use in stud poker games, where being able to read cards from a distance is a benefit and hand sizes are small. Some decks use four colors for the suits in order to make it easier to tell them apart: the most common set of colors is black (spades `), red (hearts e), blue (diamonds f) and green (clubs c).

When giving the full written name of a specific card, the rank is given first followed by the suit, e.g., "Ace of Spades". Shorthand notation may list the rank first "A`" (as is typical when discussing poker) or list the suit first (as is typical in listing several cards in bridge) "'AKQ". Tens may be either abbreviated to T or written as 10.

## **German**

German suits may have different appearances. Many southern Germans prefer decks with hearts, bells, leaves, and acorns (for hearts, diamonds, spades, and clubs), as mentioned above. In the game Skat, Eastern Germany players used the German deck, while players in western Germany mainly used the French deck. After the reunification a compromise deck

was created, with French symbols, but German colors. Therefore, many "French" decks in Germany now have yellow or orange diamonds and green spades.

**example** Old German playing cards **as produced by** Altenburger Spielkartenfabrik

## Central European

The cards of Hungary, Austria, Slovenia, the Czech Republic, Croatia, Slovakia, and southern Tyrol use the same colors (hearts, bells, leaves and acorns) as the cards of Southern Germany. They usually have a deck of 32 or 36 cards. The numbering includes VII, VIII, IX, X, Under, Over, King and Ace. Some variations with 36 cards have also the number VI. The VI in bells is having also the function like a joker in some games and it's named Welli.

These cards are illustrated with a special picture series that was born in the times before the 1848-49 Hungarian Freedom Fights, when revolutionary movements were awakening all over in Europe. The Aces show the four seasons: the ace of hearts is spring, the ace of bells is summer, the ace of leaves is autumn and the ace of acorns is winter. The characters of the Under and Over cards were taken from the drama, William Tell, written by Schiller in 1804, that was shown at Kolozsvár (today Cluj-Napoca) in 1827. It was long believed that the card was invented in Vienna at the Card Painting Workshop of Ferdinand Piatnik, however in 1974 the very first deck was found in an English Private Collection, and it has shown the name of the inventor and creator of deck as Schneider József, a Master Card Painter at Pest, and the date of its creation as 1837. He has chosen the characters of a Swiss drama as his characters for his over and under cards, however if he would have chosen Hungarian heroes or freedom fighters, his deck of cards would have never made it into distribution, due to the heavy censorship of the government at the time. Interestingly, although the characters on the cards are Swiss, these cards are unknown in Switzerland.

Games that are played with this deck in Hungary include Ulti, Snapszer (or 66), Zsírozás, Preferansz and Lórum. Explanations of these games can be found at The Card Games Website.

## Switzerland

In the German speaking part of Switzerland, the prevalent deck consists of 36 playing cards with the following suits: roses, bells, acorns and shields. The ranks of the alternate deck, from low to high, are: 6, 7, 8, 9, banner (10), "under", "over", king and ace.



## Italian

Italian playing cards most commonly consist of a deck of 40 cards, and are used for playing Italian regional games such as Scopa or Briscola. Since these cards first appeared in the late 14th century A.D. when each region in Italy was a separately ruled province, there is no official Italian pattern. There are 16 official regional patterns in use in different parts of the country (about one per province). These sixteen patterns are split amongst 4 regions:

- Northern Italian Suits - Triestine, Trevigiane, Trentine, Bolognese, Bergamasche
- Spanish-like Suits - Napoletane, Sarde, Romagnole, Sicilian, Piacentine.
- French Suits - Giovanese, Lombarde, Toscane, Piemontesi.
- German Suits - Salisburghesi, South Tyrol, Tirolian (once Austria).

The suits are coins (sometimes suns or sunbursts), swords, cups and clubs (sometimes batons), and each suit contains an ace (or one), numbers two through seven, and three face cards. The face cards are:

- King (Re) - a man standing, wearing a crown
- Knight (Caval or Cavallo) - a man sitting on a horse (can be referred to as a donna)
- Jack (Fante) - a younger man standing, without a crown
- In the modern Modiano Trieste version of the deck, the Jack (Fante) is sometimes mistakenly referred to as a 'donna' in southern regions, and stands on the ground without a crown, and is counted lower than the Knight. In actual fact, the complementary game rule cards for Briscola and Scopa from Modiano actually refer to the Knight as either the Cavallo or Donna, probably staying inline with the French version of the Dame/Regina or as more commonly known the 'Queen'.

Unlike Anglo-American cards, some Italian cards do not have any numbers (or letters) identifying their value. The cards' value is determined by identifying the face card or counting the number of suit characters.

**Example:** "Triestine" playing cards **manufactured by** Modiano

## Spanish

The four aces of the *Spanish playing cards* (naipes), as styled in the best-selling deck made by Heraclio Fournier. The palos (suits) are (left to right, top to bottom): copas (cups), oros (coins), bastos (batons) and espadas (swords). Notice the pattern of interruptions (la pinta) that identifies each suit in the horizontal line section of the card frames.

The traditional Spanish deck (referred to as baraja española in Spanish) is a direct descendant of the Tarot deck. However, like most other decks derived from it, the Spanish deck kept only the minor arcana (with the exception of the 10s and the queen of each suit, which were dropped), while all of the major arcana from the Tarot deck were discarded. Being a Latin-suited deck (like the Italian deck), it is organized into four palos (suits) that closely match those of the Tarot deck: oros ("golds" or coins, cf. the Tarot suit of pentacles),

copas (beakers), espadas (swords) and bastos (batons or clubs, cf. the Tarot suit of wands). Apart from its characteristic icon, each suit can also be identified by a pattern of interruptions in the horizontal sections of the quadrangular line that frames each card (this pattern is known as la pinta): none for oros, one for copas, two for espadas and three for bastos.

The cards (naipes or cartas in Spanish) are all numbered, but unlike in the standard Anglo-French deck, the card numbered 10 is the first of the court cards (instead of a card depicting ten coins/cups/swords/batons); so each suit has only twelve cards. The three court or face cards in each suit are as follows: la sota ("the knave", jack or page, numbered 10 and equivalent to the Anglo-French card J), el caballo ("the horse", horseman, knight or cavalier, numbered 11 and used instead of the Anglo-French card Q; note the original Tarot deck has both a cavalier and a queen of each suit, while the Anglo-French deck dropped the former, and the Spanish deck dropped the latter), and finally el rey ("the king", numbered 12 and equivalent to the Anglo-French card K). Many Spanish games involve forty-card decks, with the 8s and 9s removed, similar to the standard Italian deck.

The Spanish deck is used not only in Spain, but also in other countries where Spain maintained an influence (e.g., the Philippines and Puerto Rico) <sup>1</sup>. Among the games played with this deck are: el mus (a very popular and highly regarded vying game of Basque origin), la brisca, el tute (with many variations), el guiñote, la escoba (a trick-taking game), el julepe, el cinquillo, las siete y media, la mona, el truc (or truco), and el cuajo (a matching game from the Philippines).

## **Japanese**

The standard 54-card deck is also commonly known as a poker deck or—in Japan—a Trump deck, to differentiate it from "dedicated" card games such as UNO, or other dynamic card decks like Hanafuda and Kabufuda.

## **Playing card symbols in Unicode**

The Unicode standard defines 8 characters for card suits in the Miscellaneous Symbols block, from U+2660 to U+2667:

<b>U+2660</b> 9824	dec:	<b>U+2661</b> 9825	<b>U+2662</b> 9826	<b>U+2663</b> 9827	dec:
a	b	c			
BLACK SPADE SUIT	WHITE HEART SUIT	WHITE DIAMOND SUIT	BLACK CLUB SUIT		
&spades; &#9824; &#x2660;	&#9825; &#x2661;	&#9826; &#x2662;	&clubs; &#9827; &#x2663;		
<b>U+2664</b> 9828	dec:	<b>U+2665</b> 9829	<b>U+2666</b> 9830	<b>U+2667</b> 9831	dec:
d	e	f	g		
WHITE SPADE SUIT	BLACK HEART SUIT	BLACK DIAMOND SUIT	WHITE CLUB SUIT		
&#9828; &#x2664;	&hearts; &#9829; &#x2665;	&diams; &#9830; &#x2666;	&#9831; &#x2667;		

## See also

- Card game

## References

- Parlett, David. The Oxford Guide to Card Games. 1990. ISBN 0-19-214165-1.

## Liar's poker

*Liar's poker* is a bar game that combines statistical reasoning with bluffing, and is played with the eight-digit serial number on a dollar bill. Normally the game is played with a stack of random bills obtained from the cash register.

The object is to make the highest bid of a number that does not exceed the combined total held by all the players. The numbers are usually ranked in the following order: 2,3,4,5,6,7,8,9,0(10)and 1(Ace). If the first player bids three 6's, he is predicting there are at least three 6's among all the players, including himself. The next player can bid a higher number at that level (three 7's), any number at a higher level (four 5's) or challenge. The end of the game is reached when a player makes a bid that is challenged all around. If the bid is successful, he wins a dollar from each of the other players, but if the bid is unsuccessful, he loses a dollar to each of the other players.

Liar's dice is a similar game played with dice, often as a drinking game.

## The book

**Liar's Poker** is also the name of a book by Michael Lewis which tells of his time as a bond trader at Wall Street firm Salomon Brothers during the bond boom of the 1980s. The book takes its name from the game, which was popular with the traders (and played for stakes much higher than a dollar). The book was a best seller, and is thought as an entertaining read on the investment banking industry built on the experience of the author (Michael Lewis) being once employed in the industry.

## Bourré

*Bourré* (also commonly known as *Bouré* and *Boo-Ray*) is a trick-taking gambling card game primarily played in the Acadiana region of Louisiana in the United States of America. The game's closest relatives are probably Spades and Poker; like many regional games, Bourré sports a large number of variant rules for both gameplay and betting considerations.

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- **1 Object**
- **2 Rules**
- **3 Variations**
- **4 Resources**

## Object

The object of Bourré is to take a majority of the tricks in each hand and thereby claim the money in the pot. If a player cannot take a majority of tricks, their secondary goal is to keep from bourréing, or taking no tricks at all. A bourré usually comes at a high penalty, such as matching the amount of money in the pot.

## Rules

The game is played with a standard 52-card deck; aces are high. With four players, everyone is guaranteed fresh cards if they draw replacements; with more, it may be necessary to use previously-discarded ones, so five or six players is considered the practical limit of single-decked Bourré.

After every player antes, the dealer passes out five cards to each player, one at a time. The dealer flips their own fifth card--the last dealt--and the suit of that card is considered trumps. As in Spades, this suit beats all others; a 2 of trumps is "higher" in rank than an Ace of any other suit.

After the deal, each player (starting with the one to the dealer's left and continuing clockwise) states their intent to play. Many variants require an additional ante at this point.

Those who are not playing in the hand fold, and those cards are collected by the dealer for possible use if the main stock runs out.

Once every player has stated their intent, the dealer asks those still in the game (in the same order as before) how many new cards they desire. They can take any number from zero to five; their discards go in a separate pile, and the dealer hands them as many new cards as they discarded. If the main stock is depleted before all the players have been serviced, the dealer shuffles the "folded" hands and deals those; if that stock is depleted as well, the discards are shuffled and used.

Once everyone, including the dealer, has either folded or completed their redraw, the trick-taking phase begins. The first player to the dealer's left that is still in the game starts by playing any card from their hand (with few exceptions); rules of play are as follows, and a lower-numbered rule overrides any higher-numbered one.

1. You must play to win. This goes beyond simply "playing a higher card;" if you know that no one else has any trumps, and it is your turn to lead, you must play trumps if you have them.
2. You must play on-suit if possible, even if your highest on-suit card will not beat the highest card in play. Even if a trump has been played on a non-trump lead, if you have a card of the suit led, you must play on that suit.
3. You must play a trump if you have no on-suit cards. You still must play to win; if the only trump played is a 3, you hold the 2 and the Ace of trumps but no cards of the lead suit, you must play the Ace of trumps.
4. If you have neither any cards of the lead suit nor any trumps, you may play any card. This is an off card, and is effectively lower than the 2 of the lead suit.

The winner of a given round, or trick, collects the cards and places them face-up in front of them. They then lead with another card. Play proceeds until all five tricks have been completed.

- If a single player has taken more tricks than any other player, they have won the hand and take all of the winnings in the pot.
- If more than one person ties for the most tricks, this is a split pot. With five tricks, the only possible splits are 2-2-1 and 1-1-1-1-1. On a split pot, no one takes the winnings; they stay on the table.
- If anyone did not take any tricks, or reneged during play--that is, did not follow the rules properly--they have *bourré*d and must match the pot for the next round instead of their usual ante. For example, if there are five red chips in the pot at the end of a hand and someone has *bourré*d, they must put five red chips (or their equivalent) in the pot for the next round.

Deal then passes to the left.

There are complex rules about forced plays; a simple example is when someone has just taken their second trick and holds the Ace of trumps in their hand. Since the Ace of trumps is unbeatable, they must play it as their next card. Similar occurrences are when a player has taken one trick and has both the Ace and King, or (more complex) the Ace, Queen, and Jack. While the rules themselves are simple in theory, the details about forced plays can make *Bourré* challenging for even the skilled player.

The "must play to win" rule can have contentious results if a player is playing "nice," trying to keep others from bourréing. Most games disallow such "nice" plays; players must attempt to bourré as many other players as possible. As Bourré is a game with imperfect information, and gamesmanship should (hopefully) trump rules-lawyering, care should be applied to any analysis of rounds when looking for such "nice" plays.

## **Variations**

Variations in the rules of Bourré abound, possibly due to its nature as a regional game. Perhaps the most common is the introduction of a pot limit, which caps the total amount a single bourré or renege can cost a given player. In some games, it is common for the dealer to ante for all of the players; this simplifies trying to determine whether individuals have anteed. In a sense, the dealer is paying for his face up trump. In this variation, for a five person, one dollar ante game, the dealer of each hand would ante five dollars. A common point of dissent is whether a player who holds trumps but not the lead suit should be forced to play a trump if they cannot beat a higher trump already on the table; while the general consensus seems to be that they must, groups of players are known to not follow that particular detail. Punishments for misplay range from simple retraction (good for new players), retraction-and-renege, or just a renege, which can lead to the misplaying individual attempting to bourré one or more other players. The default ante amount is understandably variable, and the second ante is fairly common.

## **Resources**

Guidry, Preston (1988). Graeff, Benny and Lantier, Ivy (eds.) Official Rules and Techniques of the Cajun Card Game Bourré (boo-ray). Louisiana: National Cajun Bourré Association.

Engler, Henry J (1964). Rules and Techniques of Bourré.  
Bouré rules

# Bridge

## Bridge

Players	4
Age range	recommended for 12 and up
Setup time	< 2 minutes
Playing time	WBF tournament games = 7.5 minutes per deal
Rules complexity	Medium
Strategy depth	High
Random chance	Low - high depending on variant played
Skills required	Memory, Tactics

*Contract bridge*, usually known simply as *bridge*, is a trick-taking card game of skill, and partly of chance, for four players, who form two partnerships (sides). The partners sit opposite each other. The game consists of two main parts – bidding (or auction) and play, after which the hand is scored.

The bidding ends with a contract, which is a declaration by one partnership that their side shall take a stated quantity (or more) of tricks, with specified suit as trump or without trumps. The rules of play are rather simple and similar to other trick-taking games.

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## Game play

Two partnerships of two players each are needed to play bridge. The four players sit around a table with partners opposite one another. The compass directions are often used to refer to the four players, aligned with their seating pattern. Thus, South and North form one partnership and East and West form the other.

A session of bridge consists of many *deals* (also called hands or boards); the game play of each deal consists of four phases: the deal, the bidding (or auction), the play of the cards, and scoring.

The goal is to achieve as high a numerical score as possible with the dealt cards. The score is affected by two principal factors: the number of tricks bid in the auction, and the number of tricks taken during play. Broadly said, there is incentive to the players to accurately bid the number of tricks that their hands are capable of delivering, as the bonuses for bid tricks increase with the bid level (number of tricks). Thus, in the bidding stage, the pairs compete to see who proposes the highest number of tricks, and the side who wins the bidding must then fulfill that bargain by taking at least the contracted quantity of tricks in play to obtain a score. The number of tricks bid and the trump suit (or lack thereof) are referred to as a contract. The trump suit, or its absence (no trumps) is referred to as denomination or strain. If the side who wins the auction then takes the contracted number of tricks (or more), it is said to have fulfilled the contract and is awarded a score; otherwise, the contract is said to be defeated and points are awarded to the defenders.

## Dealing

The game is played with a complete deck of 52 cards. One of the players is the dealer. In rubber bridge (or other "friendly" games), the cards are shuffled and the dealer distributes all the cards clockwise one at a time, starting with his left-hand opponent and ending with himself, so each player receives a hand of thirteen cards. At the same time, for convenience, the dealer's partner usually shuffles a second deck, to be ready for use on the following deal. The deal rotates clockwise, so the dealer's left-hand opponent will deal next.

In duplicate bridge, the hands are shuffled only once, at the beginning of the tournament, and dealt clockwise one at a time (there are also special machines for pre-dealing on large tournaments), and placed into bridge boards. At each subsequent table, each player pulls his cards from the board and counts them to ensure that the deal has not been corrupted. Unlike in other trick-taking games, the players do not throw their cards to the middle of the table in each trick; instead, each player keeps his played cards before him, to allow the completed deal to be returned to the board unaltered.



## The auction

The auction determines the declaring side and the final contract, which consists of the denomination and level (amount of tricks). Only one of partners of the declaring side, referred to as declarer, will play the hand, while the other will become the dummy (i.e. doing nothing). In addition, if the final contract is doubled (by the opponents) or redoubled (by the contracting partnership) the scoring of the hand is increased, whether the contract is made or defeated.

During the auction, each player makes a call at his turn, which must be one of the following:

- Bid (stating a level and a denomination)
- Double (when the last call other than pass was a bid by an opponent)
- Redouble (when the last call other than pass was a double by an opponent)
- Pass (when unwilling to make one of the three preceding calls, i.e. "abstain")

(Note: although technically incorrect, the word "bid" is also often used informally in place of "call")

The auction starts with the dealer and proceeds clockwise with each player, having first evaluated their hands, making a call in order. The auction ends when 3 successive passes occur after a bid, double or redouble (or if all 4 players pass in the first round).

A bid specifies how many tricks the bidder believes that his partnership can take using his hand and his partner's hand, and with which strain as trump. Any bid starts with the assumption that the bidder can make at least six tricks, called book, plus the stated number of additional tricks. So the bid includes a *level* (from one to seven, representing how many tricks beyond six the bidder proposes to make) and a *denomination* (also called strain), which is either a suit or "no trump". For instance, "3 hearts" asserts that his partnership can take nine tricks (book plus three) with hearts as the trump suit. There are 35 possible bids, which include all combinations of 5 denominations and 7 levels (7-13 tricks).

A player wishing to bid at his turn must make a bid that is higher than the preceding bid. A bid is higher if it specifies any denomination on a higher level, or a higher-ranked denomination on the same level. The denominations are ranked in alphabetical order, from lowest to highest, as clubs (*c*), diamonds (*f*), hearts (*e*), spades (*s*), and no trump (NT). Thus, after a bid of 3*e*, bids of 2` or 3*c* are not allowable, but 3` or 4*f* are. Thus, 1*c* is the lowest possible bid, followed by 1*f* etc, while 7NT is the highest possible bid.

A double can be made only after the opponents have made a bid. At its simplest, this states that the player is so confident that the opponents cannot make their bid during play that the player is willing to double their score if they do and the penalty if they do not. However, in modern bridge, the double is often used in conventional sense, to ask partner to bid or to pass information to partner. A "redouble" is a bid which can be made only following an opponents' "double"; it increases the points scored yet further. In practice the redouble can also be used systemically for other purposes. Double and redouble are in effect only until the next bid, i.e. any subsequent bid invalidates them.

Once the auction ends, the last bid (together with any double or redouble that followed it) becomes the contract, and the level of this bid determines the number of tricks required to achieve the contract and its denomination determines what suit, if any, will be trumps. The pair that did not win the contract is called the defense. The pair that made the last bid is divided further: the player who first made a bid in the denomination of the final contract becomes the declarer and his or her partner becomes the dummy. For example, suppose West is the dealer and the bidding was:

South West North East

	pass	1 $\epsilon$	pass
1`	pass	2 $f$	double
3`	pass	4`	pass
pass	pass		

Then East and West would be the defenders, South would be the declarer (since South was the first to bid spades), North would be the dummy, and spades would be the trump suit; 10 tricks would be required by declarer (and dummy).

## The play of the hand

The play consists of thirteen tricks, each trick consisting of one card played from each of the four hands. Aces are high in bridge, followed by kings, queens, jacks, 10s, 9s ... down to 2s, the lowest card in each suit. The first card played in a trick is called the lead, and players play a card clockwise around the table. Any card may be selected from a hand as the lead, but the remaining hands must follow suit (meaning, they must play a card in the same suit as the lead), unless they have no more cards of that suit. If a hand contains no cards of the led suit then any card may be played. The hand that plays the highest card in the suit of the lead wins the trick, unless any of the played cards are of the trump suit, in which case the hand that plays the highest trump card wins the trick. The hand that wins each trick plays the lead card of the next trick, until all the cards are played.

The first lead, called the opening lead, is made by the defender to the left of the declarer. After the opening lead is played, the dummy lays his/her hand face up on the table in four columns, one for each suit, with the column of the trump suit (if there is one) on the right as dummy looks at the table. The declarer is responsible for selecting cards to play from the dummy's hand and from own hand in turn. The defenders each choose the cards to play from their own hands. Dummy is allowed to prevent declarer from infringing the rules of play but otherwise must not interfere with the play; thus dummy may attempt to prevent declarer from revoking (by asking eg "No more spades partner?") but must not comment on opponents' actions or make suggestions as to play; even seemingly trivial comments such as "You won that trick partner" are not permitted. In casual bridge games the dummy often does nothing but in duplicate bridge dummy must play cards from the dummy hand at declarer's verbal instruction (eg "jack of hearts please partner"). This is a less ambiguous method of card selection than declarer leaning over the table and touching a card.

In the end, the goal for each pair is to make as high a score as possible. However, the level of the contract makes a specific target: the number (level) of the contract is the number of tricks the declarer must take beyond 6. Thus, the declarer always attempts to take at least a majority of the tricks. In the example above, the declarer must manage to take 10 tricks (the assumed "book" of 6, plus 4 as bid, with spades as trumps), to make the contract and get a score. Success in this goal is rewarded by points in the scoring phase for the declarer's side. If the declarer fails to make the contract, the defenders are said to have set or defeated the contract, and are rewarded points for doing so.

## Scoring

When the declarer makes the contract, the declarer's side receives points for:

- The contract bid and made
- Overtricks (tricks taken over the contract level)
- Other specific bonuses

When the declarer fails to make the contract, the defending pair receives points for undertricks – the number of tricks by which declarer fell short of the goal.

Most bidding revolves around efforts to bid and make a game. Because of the structure of bonuses, certain bid levels have special significance. The most important level is game, which is any contract whose bid trick value is 100 or more points. Game level varies by the suit, since different suits are worth different amounts in scoring. The game level for no trump is 3 (9 tricks), the game level for hearts or spades (major suits) is 4 (10 tricks), and the game level for clubs or diamonds (minor suits) is 5 (11 tricks). High bonuses are also awarded for bidding and making small slam (level 6) and grand slam (level 7, i.e. all the tricks).

The concept of vulnerability affects scoring and introduces a wider range of tactics in bidding and play. Every partnership is beforehand assigned one of two states: vulnerable or non-vulnerable. When a pair is vulnerable, game and slam bonuses are higher, as well as penalties for failure to make the contract. Methods for assigning vulnerability differ for duplicate) and rubber bridge.

There are two important variations in bridge scoring: rubber scoring and duplicate scoring. They share most features, but differ how the total score is accumulated. In rubber bridge, points for each pair are tallied either "above the line" or "below the line". In duplicate bridge, all the points are accumulated and present a single score, expressed as a positive number (sum of trick points and bonus points) to the winning pair, and by implication, as a negative number to the opponents. "Chicago" bridge is a form of friendly game which uses duplicate scoring, that is, a set consists of four deals with different vulnerabilities (whether a team has already made game), and every deal is scored as a single number.

In duplicate bridge, the same hand is played unchanged across two or more tables and the results are compared using various methods. The differences are expressed in matchpoints or IMPs. They are summed for every pair for every board they play, and the pair with highest total score becomes the winner of the tournament. Thus, even with bad cards, a pair can win the tournament if it has bid better and played better than the other players who played the same set of cards.

## **Laws of Duplicate Contract Bridge**

Rules of contract bridge are standardized by World Bridge Federation and published in the book "Laws of Duplicate Contract Bridge"[1]. The last edition is issued in 1997 and consists of 93 laws (articles). All duplicate bridge sponsoring organizations on lower levels must apply those rules. A large portion of the laws, though, is devoted to dealing with various irregular situations, and as such it is mostly used by tournament directors (referees) as the reference book. They are, of course, not binding for rubber and other "friendly game" players, and, instead, simpler rules for dealing with irregularities are often applied by the players themselves.

## **History**

Trick-taking games can be traced back to the early 16th century. Whist became the dominant form, and enjoyed a loyal following for centuries.

According to the Oxford English Dictionary, the word bridge is the English pronunciation of "biritch", an older name of the game of uncertain origin; the oldest known rule book, from 1886, calls it "Biritch, or Russian Whist". This game, known today by the retronyms bridge-whist and straight bridge, became popular in the United States and the UK in the 1890s.

Biritch featured several significant developments from Whist: the trump suit was either chosen by the dealer, or he could pass the choice to his partner; there was a call of no trumps; and the dealer's partner laid his cards on the table as dummy to be played by the dealer. It also featured other characteristics found in modern bridge: points scored above and below the line; game was 3NT, 4H and 5D (although 8 club tricks and 15 spade tricks were needed!); the score could be doubled and redoubled; there were slam bonuses.

In 1904 auction bridge arose where the players bid in a competitive auction to decide the contract and declarer. The object became to make at least as many tricks as were contracted for and penalties were introduced for failing to do so.

The modern game of contract bridge was the result of innovations to the scoring of auction bridge made by Harold Stirling Vanderbilt and others. The most significant change was that only tricks contracted for were counted below the line towards game and for slam bonuses, which resulted in bidding becoming much more challenging and interesting. Also new was the concept of vulnerability to make it more expensive to sacrifice to protect the lead in a rubber, and the various scores were adjusted to produce a more balanced game. Vanderbilt set out his rules in 1925, and within a few years contract bridge had so supplanted other forms of the game that "bridge" became synonymous with "contract bridge."

These days most bridge played is tournament bridge.

## **Tournaments**

At its core, bridge is a game of skill played with randomly dealt cards, which makes each deal a game of chance. Despite this, chance can be largely eliminated by comparing pairs' results in identical situations. This is achievable when there are eight or more players, sitting at several tables, and the deals from each table are preserved and passed to the next table, thereby duplicating them for another 4 (or more) participants to play. At the end of a competition, the scores for each deal are compared against each other, and most points are awarded to the players doing the best with each particular deal. This measures skill despite the initial chance of the deal.

This form of the game is referred to as duplicate bridge and is played in tournaments, which can gather as many as several hundred players. Duplicate bridge is a mind sport, and its popularity gradually became comparable to that of chess, which it is often compared with for its complexity and mental skills required for high-level competition.

The basic premise of duplicate bridge was occasionally used for whist matches, as early as 1857. For some reason, duplicate was not thought to be suitable for bridge, and so it wasn't until the 1920s that (auction) bridge tournaments became popular.

In 1925 when contract bridge first evolved, bridge tournaments were becoming popular, but the rules were somewhat in flux, and several different organizing bodies were involved in tournament sponsorship: the American Bridge League (formerly the American Auction Bridge League, which changed its name in 1929), the American Whist League, and the United States Bridge Federation. In 1935, the first officially recognized world championship was held. By 1937, however, the American Contract Bridge League had come to power (a union of the ABL and the USBF), and it remains the principal organizing body for bridge tournaments in North America. In 1958, the World Bridge Federation was founded, as bridge had become an international activity.

Today, the ACBL has over 160,000 members and runs 1100 tournaments per year with 3200 officially-associated bridge clubs.

## **Bidding boxes and bidding screens**

In tournaments, "bidding boxes" are frequently used. A bidding box is a box of cards, each bearing the name of one of the legal calls in bridge. A player wishing to make a call displays the appropriate card from the box, rather than making a verbal declaration. This prevents unauthorized information from being conveyed via voice inflection. In top national and international events, "bidding screens" are used. These are diagonal screens which are placed across the table, preventing a player from seeing his partner during the game.

## **Important Bridge Players**

Giorgio Belladonna  
Easley Blackwood Sr.  
Norberto Bocchi  
Ely Culbertson

Giorgio Duboin  
Benito Garozzo  
Charles Goren  
Bob Hamman  
Oswald Jacoby  
Jeff Meckstroth  
Terence Reese  
Eric Rodwell  
Omar Sharif  
Helen Sobel Smith  
Samuel Stayman

## **Game Strategy**

### **Bidding systems and conventions**

Much complexity in bridge arises from the difficulty of successfully arriving at a good final contract in the auction. This is a fundamentally difficult problem: the two players in a partnership must try to communicate enough information about their hands to ultimately arrive at a makeable contract, but the information they can exchange is restricted in two ways:

- Information may only be passed by the calls made and later by the cards played, and not by any other means.
- The agreed-upon meaning of all information passed must be available to the opponents.

A bidding system is the typical solution to this problem: each player evaluates his or her own hand and makes bids to give or request information from their partner, with the goal of eventually arriving at an ideal contract. Bids, doubles, redoubles, and even passes can be either natural or conventional. A natural bid is a proposal to reach a contract in the named suit. A conventional bid is an attempt to communicate, offering and/or asking for information about the partnerships' hands, that is not intended to be a proposal for the final contract. A wide variety of bidding systems have been developed over the course of the 20th century. However, most modern systems have well-established common ground.

First of all, a fairly universal system of high card points is used to give a basic evaluation of the strength of a hand. Aces are counted as 4 points, kings as 3, queens as 2, and jacks as 1 point; therefore, the deck contains 40 points. 26 points shared between partners is considered sufficient for a partnership to bid, and make, game in a major or in no trump. In addition, the distribution of the cards in a hand into suits may also contribute to the strength of a hand and be counted as distribution points. Because 26 points is usually considered sufficient to make game, 13 points in one hand is considered sufficient to open the bidding (that is, make the first bid in the auction), by bidding 1 of a suit.

A one no trump opening bid usually reflects a hand that has relatively balanced suits and high cards, and usually refers to a hand with 15-17 high card points. In some systems the number of points expected from a 1NT opening bid changes, but it almost always refers to a relatively narrow range of points.

Opening bids of 2 or higher are reserved for two types of bids: unusually strong bids and preemptive bids. Unusually strong bids communicate an especially high number of points; the availability of unusually strong bids allows a player with a weak hand to safely pass when their partner opens the bidding at one of a suit. Preemptive bids are often made with weak hands that especially favor a particular suit. For instance, with a hand of  $\spadesuit AK98742$   $\heartsuit 73$   $\clubsuit 42$   $\diamondsuit 76$ , an opening bid of 3 $\spadesuit$  is a very reasonable sacrificial bid, designed to make it difficult for the opposing team to determine a contract for themselves (which is good here, since they are likely to have the bulk of the points).

Most systems include the weak two bid convention, in which opening bids of 2 $\heartsuit$ , 2 $\spadesuit$ , or 2 $\diamondsuit$  are reserved for preemptive bids, while 2 $\clubsuit$  is used for very strong hands. This is a first example of a conventional bid: an opening bid of 2 $\clubsuit$  in no way suggests 2 $\clubsuit$  as a final contract: indeed, in these systems 2 $\clubsuit$  may be bid without any clubs.

Another common convention is the 5-card major convention, in which an opening bid of 1 $\heartsuit$  or 1 $\spadesuit$  promises at least 5 cards in that suit. This leads to some awkward bids, for instance, when a player has four cards in each major, and is forced to open the bidding with 1 of a 3-card minor suit.

Doubles are sometimes used in bidding conventions. A natural, or penalty double, is one used to try to gain extra points when the defenders are confident of setting (defeating) the contract. The most common example of a conventional double is the takeout double of a low-level bid, implying support for the unbid suits and asking partner to choose one of them.

There are many other conventions. Some of the most famous are Stayman, Jacoby transfers and Blackwood.

Bidding systems depart from these basic ideas in varying degrees. Standard American, for instance, is a collection of conventions designed to bolster the accuracy and power of these basic ideas, while Precision Club is a highly conventional system that uses the 1 $\clubsuit$  opening bid for strong hands (but sets the threshold rather lower than most other systems) and requires many other changes in order to handle other situations. Many experts today use a system called 2/1 game forcing. In the UK, Acol is the standard system. There are even a variety of techniques used for hand evaluation. The most basic is the Milton Work point count, but this is sometimes augmented by other guidelines such as losing trick count, law of total tricks or Zar Points.

## Play techniques

Terence Reese, a prolific author of bridge books, points out that there are only four ways of taking a trick by force, and two of these are very easy:

- playing a high card that no one else can beat
- trumping an opponent's high card

- establishing long cards (the last cards in a suit will take tricks if the opponents don't have the suit and are unable to trump)
- playing for the opponents' high cards to be in a particular position (if their ace is in front of your king, your king may take a trick)

Nearly all trick-taking techniques in bridge can be reduced to one of these four methods.

The optimum play of the cards can require much thought and experience, and is too complicated to describe in a short article. However, some basic ideas of probability may be considered:

Some of the most important probabilities have to do with the position of high cards.

- The probability that a given opponent holds one particular card, e.g. the king: 50%
- The probability that a given opponent holds two particular cards, e.g. the king and the queen: approximately 25%
- The probability that a given opponent holds at least one of two particular cards, e.g. the king or the queen: approximately 75%

When developing long cards, it is important to know the likelihood that the opponents' cards in the suit are evenly divided between them. Generally speaking, if they hold an even number of cards, they are unlikely to be exactly divided; if the opponents have an odd number in the suit, the cards will probably be divided as evenly as possible. For example, if declarer and dummy have eight trumps between them, the opponents' trumps are probably (68% chance) divided 3-2 (one opponent with three trumps, the other with two) and trumps can be drawn in three rounds. If declarer is trying to play with a seven card trump suit, it is more likely that the outstanding trumps are divided 4-2 (48%) than that the cards are evenly divided 3-3 between the opponents (36%).

#### **Basic techniques by declarer**

- trumping
- crossruff
- establishing long suits
- finesse
- holdup (mostly at NT contracts)
- managing entries
- drawing trumps

#### **Advanced techniques by declarer**

- counting the hand (tracking the distribution of suits and high cards in the opponents' hands using inferences from the bidding and play)
  - coup
- duck



dummy reversal  
endplay  
principle of restricted choice  
safety play  
squeeze

#### **Basic techniques by defenders**

- opening lead
- when to lead trump

#### **Advanced techniques by defenders**

- avoiding an endplay or squeeze
- counting the hand (tracking the distribution of suits and high cards in the unseen hands using inferences from the bidding and play)
- false carding
- opening lead—using information from auction
- signaling
- uppercut

## Example

♠ J3		
♥ J874		
♦ A10765		
♣ Q3		
♠ KQ872	<div style="background-color: #008000; color: white; padding: 5px; display: inline-block;">           N W E S         </div>	♠ 10954
♥ A2		♥ 96
♦ J42		♦ KQ9
♣ 1072		♣ K964
		♠ A6
♥	♠ KQ1053	
♦	♠ 83	
♣	♠ AJ85	

The cards are dealt as in the diagram, and North is the dealer. As neither North nor East have sufficient high card strength to open the bidding, South opens with the bid of **1♥**, which denotes a long suit and at least 12 high card points. West overcalls with **1♠**, North supports partner's suit with **2♥**, and East also supports spades with **2♠**. South inserts a game try of **3♣**, inviting the partner to bid the game of **4♥** with good club support and overall values, and North complies, having extra values in form of **♦A**, fourth trump, and doubleton Queen of clubs. The bidding was:

	West	North	East	South
		Pass	Pass	<b>1♥</b>
<b>1♠</b>		<b>2♥</b>	<b>2♠</b>	<b>3♣</b>
Pass		<b>4♥</b>	Pass	Pass
Pass				

In bidding, North-South were trying to investigate if their cards are worthy for making a *game*, which yields bonus points if bid and made. East-West were competing with spades, hoping to play a contract in spades at a low level. **4♥** is the final contract, 10 tricks being required for N-S to make with hearts as trumps.

West (left of South, who is the declarer, having been first to bid hearts) has to make the opening lead and chooses the King of spades, playing it face down. After that, North lies his cards on the table and becomes dummy; West turns his leading card face up, and the declarer makes a plan of playing: the bottom line is, since he has to concede trump ace, a spade, and a diamond, he must not lose a trick in clubs.

After a while, the declarer dictates North to play a small spade. East plays low (small card) and South takes the **♠A**, gaining the lead. He proceeds by drawing trumps, leading the **♥K**.

West takes his Ace and cashes the ♠Q. Since he may not continue spades for fear of a ruff and discard, he plays a diamond. Declarer ducks from the table, and East scores the ♠Q. Not having anything better to do, he returns the remaining trump, taken in South's hand. South enters the dummy using ♠A, and leads ♣Q in an attempt to finesse East's King. East covers with the King, South takes the Ace, and proceeds by cashing now high ♣J, then ruffs a small club with a dummy's trump. He ruffs a diamond in hand for an entry back, and ruffs the last club in dummy. Finally, he claims the remaining tricks by showing his hand, as it now contains only high trumps and there's no need to continue the play.

(The trick-by-trick notation can be also expressed using a table, but textual explanation is usually preferred, for reader's convenience. Plays of small cards or discards are not explicated, unless they were important for the outcome).

North-South have scored the required 10 tricks, and their opponents took the remaining 3. The contract is fulfilled, and North enters +620 for his side (North-South are in charge for bookkeeping in duplicate tournaments) in the traveling sheet. Every player returns his own cards into the board, and the next deal is played.

## Bridge on the Internet

There are several free and some subscription-based servers available for playing bridge on the Internet. OKBridge1 is the oldest of the still-running Internet Bridge services; players of all standards, from beginners to world champions may be found playing there. SWAN Games2 is a more recent competitor. Bridge Base Online3 is mostly free, and now has a much larger membership base than either of the above. Some National Contract Bridge Organizations now offer online bridge play to their members including the English Bridge Union, the Dutch Bridge Union and the Australian Bridge Federation. MSN and Yahoo! Games have several online Rubber Bridge rooms.

There are many advantages to playing Bridge online:

- The ability to choose when you play.
- The ability to choose your opponents. In a club game, you may be forced to play against pairs that are much weaker, rude, or much stronger. Playing online, you can play against opponents of nearly equal ability.
- Most servers offer an accurate player rating system. The ACBL and EBU masterpoints systems give credit for how much one has played rather than how well; most online systems have a rating system which attempts to measure one's ability without regard to the number of games played.
- There are fewer restrictions on which conventions one is allowed to use.
- You can not make inferences from partner's tone of voice or other cues available in real life. However, intentional cheating, such as instant messaging your partner, is easier.
- A detailed record of every hand may be kept, to help resolve complaints.
- It is impossible to make an illegal play by accident, as the software won't accept a play or call which does not conform to the rules.

The main disadvantage to playing online is that bridge is a social game, and many people play because they enjoy the social atmosphere of the bridge club.

## Computer Bridge

After many years of little progress, at the end of the twentieth century computer bridge made big strides forward. In 1996 the American Contract Bridge League (ACBL) initiated official World Championships Computer Bridge, to be held annually along with a major bridge event. The first Computer Bridge Championship took place in 1997 at the North American Bridge Championships in Albuquerque.

## World Champions Computer Bridge

- 1997 Bridge Baron
- 1998 GIB
- 1999 GIB
- 2000 Meadowlark Bridge
- 2001 Jack
- 2002 Jack
- 2003 Jack
- 2004 Jack
- 2005 Wbridge5

Strong bridge playing programs such as Jack probably do not rank among the top 100,000 human players worldwide. No computer program has yet to beat a good human pair consistently (as of 2006).

## References

1. ^ WBF Laws of Duplicate Contract Bridge **Lansquenet**  
*Lansquenet* (derived from the German landsknecht ('servant of the land or country'), applied to a mercenary soldier) is a card game.

## Game play

The dealer or banker stakes a certain sum, and this must be met by the nearest to the dealer first, and so on. When the stake is met, the dealer turns up two cards, one to the right, -- the latter for himself, the former for the table or the players. He then keeps on turning up the cards until either of the cards is matched, which constitutes the winning, -- as, for instance, suppose the five of diamonds is his card, then should the five of any other suit turn

up, he wins. If he loses, then the next player on the left becomes banker and proceeds in the same way.

When the dealer's card turns up, he may take the stake and pass the bank; or he may allow the stake to remain, whereat of course it becomes doubled if met. He can continue thus as long as the cards turn up in his favour -- having the option at any moment of giving up the bank and retiring for that time. If he does that, the player to whom he passes the bank has the option of continuing it at the same amount at which it was left. The pool may be made up by contributions of all the players in certain proportions. The terms used respecting the standing of the stake are, 'I'll see' (*à moi le tout*) and *Je tiens*. When jumelle (twins), or the turning up of similar cards on both sides, occurs, then the dealer takes half the stake.

Sometimes there is a run of several consecutive winnings; but on one occasion, on board one of the Cunard steamers, a banker at the game turned up in his own favour I think no less than eighteen times. The original stake was only six pence; but had each stake been met as won, the final doubling would have amounted to the immense sum of L3,236 16s.! This will appear by the following scheme: --

L s. d. L s. d. 1st turn up 0 0 6 10th turn up 12 16 0 2nd „ 0 1 0 11th „ 25 12 0 3rd „ 0 2 0 12th „ 51 4 0 4th „ 0 4 0 13th „ 102 8 0 5th „ 0 8 0 14th „ 204 16 0 6th „ 0 16 0 15th „ 409 12 0 7th „ 1 12 0 16th „ 819 4 0 8th „ 3 4 0 17th „ 1,618 8 0 9th „ 6 8 0 18th „ 3,236 16 0

In fair play, as this is represented to have been, such a long sequence of matches must be considered very remarkable, although six or seven is not unfrequent.

Unfortunately, however, there is a very easy means by which card sharpers manage the thing to perfection. They prepare beforehand a series of a dozen cards arranged as follows: --

1st Queen 6th Nine 2nd Queen 7th Nine 3rd Ten 8th Ace 4th Seven 9th Eight 5th Ten 10th Ace

Series thus arranged are placed in side pockets outside the waistcoat, just under the left breast. When the sharper becomes banker he leans negligently over the table, and in this position his fingers are as close as possible to the prepared cards, termed *portees*. At the proper moment he seizes the cards and places them on the pack. The trick is rendered very easy by the fact that the card-sharper has his coat buttoned at the top, so that the lower part of it lies open and permits the introduction of the hand, which is completely masked.

Some sharpers are skilful enough to take up some of the matches already dealt, which they place in their *costieres*, or side-pockets above described, in readiness for their next operation; others keep them skilfully hidden in their hand, to lay them, at the convenient moment, upon the pack of cards. By this means, the pack is not augmented [Robert Houdin, *Les Tricheries des Grecs dévoilées*].

# Piquet

*Piquet* is a card game for two players. It is considered by many to be one of the best two player card games. Pronounced "pee-kay" in France, it is usually pronounced "picket" in English speaking countries.

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- 2 Rules
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  - 2.2 The Deal
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## History

Piquet is one of the oldest card games still being played. It originated over 500 years ago, with a written reference dating back to at least 1534, in *Gargantua and Pantagruel* by Rabelais.

## **Rules**

Piquet is played with a 32 card deck. Start with a standard 52 card deck and remove all of the 2's through the 6's. This leaves all of the 7's through the 10's, the face cards, and the aces.

Each game consists of a partie of six deals (partie meaning part in French). The player scoring the most points wins (see the scoring section for further details).

## **The Cut**

The player who draws the highest card on the initial cut may choose to deal the first hand. The deal alternates for each hand in the partie. It is preferable to deal first so as not to deal the last hand. Dealing puts a player at a disadvantage.

## **The Deal**

Cards are dealt 12 to each player, with the remaining eight forming the talon, which is placed face-down between the players. The talon may be split by the dealer into two piles of five and three cards, respectively.

The dealer is referred to as the Younger hand and the non-dealer, the Elder hand.

## **Carte Blanche**

After the deal, players sort their cards in their hands. If a player has no face cards in their hand, then they may declare Carte Blanche, which is worth 10 points. This done by quickly showing their hand to the opponent while saying "Carte Blanche".

A hand of this type is fairly rare, and often scores poorly, so it is usually advantageous to declare it, despite the tactical disadvantage of giving information to the opponent.

Carte Blanche must be declared prior to exchanging cards. Only one player may declare Carte Blanche. The Elder hand exchanges their cards first, so they have the advantage here. The Younger hand must wait until the Elder exchanges their cards. If the Elder has not declared Carte Blanche, then the younger may.

## **Exchanging Cards**

The goal of exchanging cards is to improve your hand before the declaration and the play.

The Elder hand exchanges first. This is done by taking one to five cards from the hand and placing them face down. An equal number is then drawn from the talon. The player must state how many cards they intend to exchange if fewer than the maximum. If the Elder

chooses to take fewer than the maximum, they may then look at the remainder if they like (which are the first ones that the Younger will take).

The Younger hand exchanges next. Again, at least one card must be exchanged. The younger may also exchange up to five cards, depending on how many the Elder exchanged. If the Elder exchanged all five, then obviously the Younger may only exchange up to three.

## **The Declaration Phase**

In the declaration phase, the players ascertain who has the better hand in each of three categories. This is done in an oblique sort of way that leads to some of the intrigue of Piquet. Elder hand declares first, with Younger responding.

In each part of the declaration, the Younger hand may choose to contest the Elder's claim. By doing so, the Younger may reveal information that would be useful during the trick-taking phase, called the play. Likewise, the Elder may choose not to reveal information in one or more parts of the declaration.

## **The Point**

If the Elder has at least four cards in a suit, they may make a declaration. For example, "Point of four".

The Younger would then respond indicating that they had more, fewer, or the same number of cards in a suit. This is done by saying "Good" (the Elder has more and wins the point), "Not good" (the Elder has fewer), or by saying "Making?" or "How many?", indicating that the Younger has the same number of cards in a suit, which requires clarification.

If both players have the same number of cards in a suit, then they must tally the value of the cards. The values of the cards are: ace = 11, face cards = 10, and face value for the rest.

After adding the values of the cards, the Elder calls out the number. The Younger may then say "Good", if the Elder's value is greater, or "Not good" and the number that wins the point. For example: "Not good: 39" or "Not good, I have 39". If the values are the same, Younger says "Equal".

The player with the better point scores the number of cards in the suit, not their value. If the values are the same, neither player scores. Note that Younger does not actually score for any declarations until Elder has led to the first trick in the play (see below).

## **The Sequence**

The next part of the declaration is the sequence, in which the longest consecutive run of cards is valued. A sequence must have at least three cards and they must all be in the same suit.



Again, the Elder hand starts. For example, "Run of three" or "Sequence of four". The Younger then responds with "Good" or "Not good", in the same way as before, or by contesting. To contest, the Younger says "How high?", to which the Elder responds with the highest card in the sequence. For example, "To the queen". Younger replies with "Good", "Not good" or "Equal".

In keeping with the game's ancestry, one may utilize the historical names for sequences in this part of the declaration, instead of the prosaic "Run of three", for example. The following are the proper names and their associated values:

- 3, tierces (pronounced tier-s) are worth 3 points
- 4, quarts (carts) are worth 4 points
- 5, quints (cants) are worth 15 points
- 6, sixieme (seize yem) are worth 16 points
- 7, septieme (set yem) are worth 17 points
- 8, huitieme (wheet yem) are worth 18 points

The person winning the sequence may declare any additional sequences that he has, if desired. If both players' best sequences are equal then neither player may score for any sequences.

### **The Set**

A set is three or four of a kind, ten or greater (7's, 8's, and 9's don't count). Sets of three are called trios (tree ohz) and are worth 3 points, and sets of four, quatorzes (cat orz), are worth 14 points. The declarations take place in the same manner as Point and Sequence, with Elder stating his best set (for example, "Three Kings"), to which Younger replies "Good" or "Not good".

The person with the best set may declare any additional sets that he has, if desired.

### **Repique and Pique**

If a player scores 30 points in the declaration phase and his opponent scores nothing, including Carte Blanche, and if neither point nor sequence were equal, that player gains a repique, which is worth an additional 60 points.

If Elder scores 30 points in declarations and play combined, before Younger scores any, then Elder gains a pique and scores an additional 30 points. Note that Younger cannot gain a pique because Elder always scores one point for leading to the first trick (see below).

By the end of the declaration, each player will have a pretty good idea of the other's hand (to the degree that each chose to claim their points).

## **The Play**

The play is the trick-taking part of the game. Players must follow suit and there are no trumps.

Play starts with the Elder hand placing a card face up and scoring one point. The Younger then scores for their declarations, and plays a card that follows suit, if possible. If not, they may discard anything they choose. The winner of the trick (the player with the highest card in the suit led), takes the trick, placing it face-down (usually--see variations) in front of them. The winner of the trick leads the next.

When forced to discard, it is important to choose the right card. See tactics.

Score is usually kept verbally as play progresses. Trick score counts as follows:

- 1 point for leading a trick
- If the second player (the player who doesn't lead) wins a trick, they get a point.
- The winner of the last trick wins a 1 point bonus (see variations).

If all 12 tricks are won by one player, that player scores 40 points for capot. Otherwise, the player with the greater number of tricks won scores 10. If there is a tie, then neither player scores any extra points.

## **Crossing the Rubicon**

When a player scores more than 100 points in the course of a partie, this is known as Crossing the Rubicon and is important in scoring.

## **Scoring**

If both players score at least 100 in a partie, then the score is winner - loser + 100. If, however, the loser fails to cross the Rubicon and score 100, then the loss is much more punishing: winner + loser + 100.

## **Variations**

Players may choose to keep tricks face up in front of them.

The winner of the last trick may score 10 points instead of 1, making the choice of how to close the play more significant.

## Tactics

## Background

The following excerpt is from *The Gaming Table : Its Votaries and Victims : Vol. 2* by Andrew Steinmetz

The card game *Piquet* is said to have derived its name from that of its inventor, who contrived it to amuse Charles VI of France. The game was played with thirty two cards, that is, discarding out of the pack all the deuces, treys, fours, fives, and sixes. Regular piquet-packs were sold. In reckoning up the points, every card counted for its value, as ten for ten, nine for nine, and so on down to seven, which was, of course, the lowest; but the ace reckoned for eleven. All court cards reckoned for ten. As in other games, the ace won the king, the king the queen, and so on, to the knave, which won the ten. The cards were dealt at option by fours, threes, or twos, to the number of twelve, which was the hand -- 'discarding' being allowed; but both the dealer and he that led were *obliged* to discard at least one card. When the cards were played out, each counted his tricks; and he that had most reckoned 10 for winning the cards; if the tricks were equal, neither reckoned at all. He who, without playing (that is, according to the various terms of the game), could reckon up 30 in hand, when his antagonist reckoned nothing, scored 90 for them; this was called a repic; and all above 30 counted so many, -- 32 counting 92, and so on. He who could make up 30, part in hand and part by play, before the other made anything, scored 60; this was called a pic.

The game was also played as pool precisely according to the rules briefly sketched as above, the penalty for losing being a guinea to the pool.

Piquet required much practice to play it well. It became so great a favourite that, by the middle of the 18th century, the meanest people were well acquainted with it, and 'let into all the tricks and secrets of it, in order to render them complete sharpers.' Such are the words of an old author, who adds that the game was liable to great imposition, and he explains the methods in use. Short cards were used for cutting, as in Whist, at the time. Of these cards there were two sorts, one longer than the rest; and the advantage gained by them was as the adversary managed it, by cutting the longer or broader, as best suited his purpose, or imposing on the dealer, when it was his turn, to cut those which made most against him. The aces, kings, queens, and knaves were marked with dots at the corners, and in the very old book from which I am quoting precise directions are given how this marking can be effected in such a manner 'as not to be discovered by your *adversary*, and at the same time appear plain to *yourself*.' With a fine pointed pen and some clear spring water, players made dots upon the glazed card at the corners according to the above method; or they coloured the water with india ink, to make the marks more conspicuous. The work concludes as follows: -- 'There are but 32 cards made use of at Piquet, so that just half of them will be known to you; and in dealing you may have an opportunity to give yourself those you *like* best; and if you cannot conveniently *change* the *pack* according to your desire, you will commonly *know* what *you* are to *take in*, which is a demonstrative advantage to win any one's money.'

Although much reduced in popularity these days, Piquet continues to enjoy a small but enthusiastic following, many of whom believe it to be the equal or even the superior of Cribbage as a card game for two. One famous enthusiast for the game is the author Richard Adams.

## Thirty-one

*Thirty-one* is a card game played by between two and seven people inclusive. The game is usually best played with at least four players. The object of *Thirty-one* is to obtain a hand with a point value closer to 31 than the hands of one's opponents. The game can also be called skedaddle or snip snap snoop.

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- 1 Details of play
- 2 Common variations of *Thirty-one*
  - 2.1 Banking version
  - 2.2 Variations on play

### Details of play

*Thirty-one* uses a standard deck of 52 playing cards. Aces are high, counting 11; face cards count 10; and all other cards count face value. Each player gets three cards in his or her hand. The rest of the pack is set in the middle of the table to act as the stock for the game, and the top card of the stock is turned over to begin the discard.

After the hands in the first round are dealt out, each player receives a previously-chosen number of tokens, or, most commonly, coins. For speed, four coins is usually the best number to play with. Play proceeds as in Gin rummy, with each player, starting with the player to the immediate left of the dealer and going clockwise around the table, taking the top card of either the stock or the discard and subsequently discarding a card. All players are trying to collect a hand value of 31 (or the closest to it) in the same suit. Play continues clockwise around the table until any player knocks or obtains a blitz.

When it is one player's turn, and that player believes his or her hand is high enough to beat those of his or her opponents individually, he or she knocks on the table in lieu of drawing and discarding. All other players, going clockwise from the player who knocked, have one more turn to draw from the stock and discard, or they have the option of keeping all three cards in their hands, known as standing. The round ends when the player to the right of the player who knocked has had his or her final turn. If no one knocks by the time a player exhausts the stock, the round ends in a draw.

At the end of the round, each player shows his or her hand and totals it up, only counting cards of the same suit. For instance, if the three cards in one's hand are all different suits, the

highest value card would stand as that player's score. The player whose hand scored the lowest is declared the loser, and must subsequently place one of his or her tokens or coins in the centre of the table.

If, at any time in the round, a player acquires a hand value of 31 the same suit, known as a blitz, he or she immediately shows it, the round immediately ends, and all other players each place one token or coin on the centre of the table.

When a player has lost all of his or her tokens or coins, he or she continues to play "on the bus" until that player loses again; at that time, he or she must leave the game. The last player to stay in the game wins all of the tokens or coins on the table.

## **Common variations of Thirty-one**

### **Banking version**

The play is the same as the regular version of Thirty-one described above, but with the following changes. Before each round, each player has to ante one token or coin onto the centre of the table. While dealing, after each player has received one card, the dealer puts one card face down on the table to form a pile of three cards known as the widow. A player may use his or her turn to exchange one or more cards in his hand with an equivalent number of cards in the widow, leaving the cards he or she put in the widow face up. At the end of the round, the player with the highest-valued hand takes all the tokens or coins on the table. If any player acquires a blitz in his or her hand, he or she immediately shows it, the round ends, all other players place one token or coin on the table, and the player who blitzed takes all of the tokens or coins on the table.

### **Variations on play**

- When a player has exhausted his/her coins/tokens (or has folded all 4 corners of his/her dollar bill, see below), that player is immediately out of game play (instead of continuing as an "on the bus" player.)
  - Instead of using coins or tokens, each player uses paper money (usually dollar bills), and in lieu of adding a coin to the pot, a player will fold a corner of the bill until 4 corners have been folded. That player is then out of the game.
  - When there are no more cards in the stock, the discard pile, less the top card, can be shuffled and turned over to replenish the stock.
  - A blitz may only count as an Ace, King, and Ten of the same suit.
  - Three cards of the same rank may count as a score of 30½.
  - When showing one's hand at the end of a round, all three cards are totaled to comprise the player's score.

- When the game is down to two players and one or both of them are on the bus, if the round ends with both players having the same value in their hands, the player who holds the highest-ranking card among the two hands wins the game. If the highest card in each of the two hands is the same rank, the second-highest-ranking cards in the two hands determines the winner. If the two hands have exactly the same ranks of cards, e.g. if they both have a Queen, Ten and Five, the game is declared a draw and the tokens or coins on the table are split between the two remaining players.
- A player who knocks but has the lowest hand; or who knocks and a blitz subsequently follows, pays not one, but two, tokens or coins.
- Instead of instantly exposing their hand, a player with 31 must knock in turn.

## Three card brag

*Three card brag* is an unusual British card game which is similar to poker but varies in betting style and hand rankings. Three card brag was played in the movie *Lock, Stock and Two Smoking Barrels* directed by Guy Ritchie, where it was played without table stakes.

***Name:*** Three card brag

***Aliases:*** Brag, Three-card brag, 3-card brag

Players: 3 to 8

## Rules

Everyone antes, and players are each dealt 3 cards face down. There is a single round of betting, with action starting to the left of the dealer. Each player has the option of betting or folding. If there was a previous bet, the player must contribute at least that much more to the pot. (Unlike usual poker betting, your previous money contributed to the pot is ignored.) This betting continues until there are only two players left, at which point either player may double the previous bet to "see" his opponent. At this point, the two hands are revealed, and the player with the better hand takes the entire pot. If there is a tie, the player who is seeing loses.

## Hand ranks

The hand rankings, from best to worst, are: three of a kind ("prial"), straight flush ("running flush"), straight ("run"), flush, pair, high card. The best prial is 3-3-3, followed by the usual order of A-A-A, K-K-K, etc. The best running flush or run is 3-2-A, followed by the

usual order of A-K-Q, K-Q-J, etc. The flushes, pairs, and high cards have normal ranking (aces high).

A pair will beat 3/4 of hands. But watch out for unexpected runs and flushes! Pairs are extremely rare (although a running flush is rarer even though it is ranked lower).

## Betting

Players also have the option of playing blind (betting without looking at their cards). A blind player's costs are all half as much as an open (non-blind) player's. However, an open player may not see a blind player. If all other players fold to a blind player, the pot remains, everyone re-antes, and the blind player gets to keep his hand for the next round (in addition to the new one he is dealt). At any time, a player with two blind hands may look at one of them and decide whether to keep it or throw it away. If he keeps it, he throws away the other hand and is considered open. If he throws it away, he keeps the other hand and is still blind. If everyone folds to a blind player with two hands, he must throw away one without looking.

## Shuffling

Another unusual custom of Brag is that the deck is rarely shuffled. Unless a hand is seen and won by a prial, the cards from the hand are just placed on the bottom of the deck, and the next hand is dealt without shuffling.

## Coin-tossing

*Coin flipping* or *coin tossing* is the practice of throwing a coin in the air to resolve a dispute between two parties or otherwise choose between two alternatives.

Coin flipping is a method that trusts the decision to pure luck, since there is no possibility for strategy, and any attempt to alter the odds (such as, most obviously, using a fake coin with both sides the same) is considered cheating. It is generally assumed that the outcome is unpredictable, with equal probabilities for the two outcomes (the *fair coin*), although careful analysis has shown that is not quite the case.

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- 1 History of coin flipping
- 2 The process of coin flipping
- 3 Coin flipping in dispute resolution
  - 3.1 Fair results from a biased coin

- 4 Physics of coin flipping
- 5 Coin flipping in fiction
- 6 Number-theoretic version of "flipping"
- 7 Counterintuitive properties
- 8 See also
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## History of coin flipping

The historical origin of coin flipping is the interpretation of a chance outcome as the expression of divine will. A well-known example of such divination (although not involving a coin) is the episode in which the prophet Jonah was chosen by lot to be cast out of the boat, only to be swallowed by a giant fish (Book of Jonah, Chapter 1).

Coin flipping as a game was known to the Romans as "*navia aut caput*" (ship or head), as some coins had a ship on one side and the head of the emperor on the other. In England, this game was referred to as cross and pile.

## The process of coin flipping

During coin flipping the coin is "flipped into the air", i.e., caused to both rise and rotate about an axis parallel to its flat surfaces. Typically, agreement is reached that one person will explicitly assign the action that will ensue from one positioning of the coin, and another, presumed to have the opposite interest or to be impartial, performs the following steps:

- resting the coin on the sides of several segments of the bent index finger of the dominant hand,
- pressing the tip of the bent thumb of the same hand against the palm-side of the index finger, so that friction there holds the thumb back from extending further,
- tensing the muscles that extend the thumb, thereby storing energy in the form of tension in those muscles,
- further extending the thumb and/or slightly uncurling the index finger, thereby overcoming the finger's frictional grip against the thumb-tip so it slips, and freely and rapidly extends, with it or its nail
  - hitting the bottom face of the coin, centered within the half of the coin that is less in contact with the bent index finger, and thus
  - simultaneously pushing it more or less upward and setting it rotating around an axis parallel to the circular faces of the coin;
- optionally, suddenly raising and quickly stopping the hand involved, in coordination with the releasing of the thumb, thus imparting extra vertical momentum (but little additional rotary momentum) to the coin. (Depending on the skill of the coin-tosser, and any resulting horizontal motion, the optional upward jerk of the tossing hand may be needed to ensure the coin stays aloft long



enough to get the catching hand into position, or for the tosser and observers to move out of its path.);

- saying "Call it", to alert the party so designated to say (while the coin is in motion, though now it is preferable to call before the coin is tossed, see Phil Lockett) either "Heads" or "Tails", designating the outcome that will correspond to the previously agreed upon outcome;
- once it falls back to a convenient height, either
  - catching the coin in an open palm, or
  - bringing one hand down over it, to prevent its bouncing away, as it lands on the other hand or arm, and quickly removing the upper hand from it, or
  - avoiding interfering with it as it falls onto a sufficiently smooth and uncluttered point on the ground;
    - if the coin falls to the ground, despite an attempt by the person flipping the coin to catch it, the process is usually not repeated, and
- all those involved jointly observing whether it has landed "showing heads" — with the side bearing the portrait or profile uppermost — or "showing tails".

There may be several rounds in a single game of coin flipping if the participants agree to this ahead of time, but typically there is only one; this keeps the contest quick and prevents the losing side from asking for more rounds after the toss.

The coin may be any type, as long as it has two distinct sides, with a portrait on one side. The most popular coin to flip in Canada and the United States is the quarter because of its size; in the UK a 2p, 10p or 50p piece is favoured. However, participants will use any coin that is handy.

## **Coin flipping in dispute resolution**

Coin flipping is used to decide which team gets the kickoff, which way the teams will play, or similar questions in Football\_(soccer) matches, American football games, and almost any other sport requiring such decisions. The most famous case of this in the U.S. is the use of coin flipping in National Football League games, especially the Super Bowl. A special mint coin, which later goes to the Pro Football Hall of Fame, is used for this purpose, and other coins in that edition are sold as collectors items. The actual NFL rule is that the team winning the coin toss elects whether to choose which team kicks off, or whether to choose which team defends which end, in the first quarter; the other team makes the other one of the two choices, and then makes the same election at the start of the third quarter. A coin toss is also used to determine which team gets the higher draft pick if there are two teams with identical win-loss records. In cricket, the toss is often of critical importance, as the decision of the winning captain to bat or bowl first has a heavy influence on the outcome of the game; in other sports the result of the toss is less crucial and merely a way to fairly choose between two more or less equal options.

In the 1968 European Football Championship the semi-final between Italy and the Soviet Union finished 0-0 after extra-time. Penalty shoot-outs had not been invented and it was decided to toss a coin to see who reached the final, rather than play a replay. Italy won, and went on to become European champions.

In some jurisdictions, a coin is flipped to decide between two candidates who poll equal number of votes in an election, or two companies tendering equal prices for a project. (For example, a coin toss decided a City of Toronto tender in 2003 for painting lines on 1,605 km of city streets: the bids were \$161,110.00, \$146,584.65, and two equal bids of \$111,242.55. The numerical coincidence is less remarkable than it seems at first blush, because three of the four bids work out to an integral number of cents per kilometer.)

In more casual settings, coin flipping is used simply to resolve arguments between friends or family members. Unlike Rock, Paper, Scissors, coin tossing is not usually invoked purely for amusement.

### **Fair results from a biased coin**

If a cheater has altered a coin to prefer one side over another (a biased coin), surprisingly the coin can still be used for fair results by changing the game slightly. John von Neumann gave the following procedure:

1. Toss the coin twice.
2. If the results match, start over, forgetting both results.
3. If the results differ, use the first result, forgetting the second.

The reason this process produces a fair result is that the probability of getting heads and then tails must be the same as the probability of getting tails and then heads, as the coin is not changing its bias between flips. By excluding the events of two heads and two tails by repeating the procedure, the coin flipper is left with the only two remaining outcomes having equivalent probability. This procedure only works if the tosses are paired properly; if part of a pair is reused in another pair, the fairness may be ruined. Some coins have been alleged to be unfair when spun on a table, but the results have not been substantiated or are not significant. Ref.

### **Physics of coin flipping**

Experimental and theoretical analysis of coin tossing has shown that the outcome is predictable, to some degree at least, if the initial conditions of the toss (position, velocity and angular momentum) are known. Coin tossing may be modeled as a problem in Lagrangian mechanics. The important aspects are the tumbling motion of the coin, the precession (wobbling) of its axis, and whether the coin bounces at the end of its trajectory.

The outcome of coin flipping has been studied by Persi Diaconis and his collaborators. They have demonstrated that a mechanical coin flipper which imparts the same initial conditions for every toss has a highly predictable outcome — the phase space is fairly regular.

Moreover, they have demonstrated both mathematically and experimentally that the underlying physics of coin tosses appears to have a slight bias for a caught coin to be caught the same way up as it was thrown, with a probability of around 0.51. Stage magicians and gamblers, with practice, are able to greatly increase this bias, whilst still making throws which are visually indistinguishable from normal throws.

Since the images on the two sides of actual coins are made of raised metal, the toss is likely to slightly favor one face or the other. This is particularly true if the coin is allowed to roll on one edge upon landing; coin spinning is much more likely to be biased than flipping, and conjurers trim the edges of coins so that when spun they usually land on a particular face.

Although it is extremely rare, there is an extremely slight possibility that a coin will come to rest on its edge (estimated at roughly 1/6000 for a U.S. nickel.) If the coin remains on its edge, while it may cause temporary distraction, the only fair course of action would be to toss the coin again.

## **Coin flipping in fiction**

At the start of a famous 1939 movie, a state governor has to select an interim Senator and is being pressured by two sides to choose their respective candidate, Mr. Hill or Mr. Miller. Unable to choose, he flips a coin in the privacy of his office... but it falls against a book and lands on edge. And so he makes neither choice, and Mr. Smith Goes to Washington.

Conversely, the 1972 movie of Graham Greene's novel *Travels with my Aunt* ends with a coin toss that will decide the future of one of the characters. The movie ends with the coin in mid-air.

The comic-book villain, Two-Face, has a double-sided coin (both sides are "heads") with one side defaced — a parallel to his actual character, because one side of his face is deformed — which he relies on for all his decisions.

Tom Stoppard's *Rosencrantz & Guildenstern Are Dead* begins with a series of coin tosses that all come up heads, implying that the characters are suspended in one unchanging moment of time before becoming part of the play.

In the video game *Final Fantasy VI*, the brothers Edgar and Sabin flip a coin in order to determine who succeeds the throne of Figaro. It is later revealed that Edgar used a double-headed coin in order to win, allowing Sabin to live without the burden of the kingdom.

In the animated series *Futurama*, Professor Farnsworth creates a parallel universe. The only difference between our universe and the other is that every time someone flipped a coin, it came up on the other side. This leads to extremely different worlds and to a lot of funny confusion.

## **Number-theoretic version of "flipping"**

There is no fair way to use a coin flip to settle a dispute between two parties over distance — for example, two parties on the phone. The flipping party could easily lie about the outcome of the toss. Instead, the following algorithm can be used:

1. Party A chooses two large primes, either both congruent to 1, or both congruent to 3, mod 4, called  $p$  and  $q$ , and produces  $N = pq$ ; then  $N$  is communicated to party B, but  $p$  and  $q$  are not. It follows  $N$  will be congruent to 1 mod 4. The primes should be chosen large enough that factoring of  $N$  is not computationally feasible. The exact size will depend on how much time party B is to be given to make the choice in the next step, and on party B's expected resources.

2. Party B calls either "1" or "3", a claim as to the mod 4 status of  $p$  and  $q$ . For example, if  $p$  and  $q$  are congruent to 1 mod 4, and B called "3", B loses the toss.

3. Party A produces the primes, making the outcome of the toss obvious; party B can easily multiply them to check that A is being truthful.

## Counterintuitive properties

If the successive tosses of a coin are recorded as a string of "H" and "T", then for any trial of tosses, it is twice as likely that the triplet TTH will occur before THT than after it. It is three times as likely that THH will precede HHT.

## See also

- Two-up
- Heads or Tails

## References

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# Head and Tail

*Heads or Tails* is a coin-tossing game.

Most coins have a side where the imprint of a person, such as a current or former head of state, is impressed — this side is called the "Head" side (since the embossing is of the head of a person). The other side may have any imprint, or none, and is called the "Tail" side.

In 1870 Brewer's Dictionary of Phrase and Fable describes heads in a similar way and details tails as being the opposite and obvious reverse to heads. The expression 'can't make head nor tail of it' expresses this concept of opposites.

Generally, one person throws the coin up in the air, and the second person must predict which side of the coin will lay face up after it rests back on the ground. A correct prediction results in a win. Another variation has the person catch the coin in one hand and slap it on the back of their other hand. Traditionally, the second person calls out "heads" or "tails" while the coin is in the air.

The Australian game of Two-up is closely related, and involves traditionally two half-pennies. Coin flipping as a game was known to the Romans as "navia aut caput" (ship or head), as some coins had a ship on one side and the head of the emperor on the other.

A related game, Cross and Pile, was played in England for many centuries. The cross was the major design element on one side of many coins, and the Pile was the bottom part of the die used to cast the other side of the coin. Cross and Pile is derived from the Greek pastime called Ostrakinda, played by the boys of ancient Greece. Having procured a shell, they smeared it over with pitch on one side and left the other side white. A boy tossed up this shell, and his antagonist called white or black (In the Greek, *nux kai hemera*, that is, 'night or day') as he thought proper, and his success was determined by the white or black part of the shell being uppermost.

In Italy this game is called *Testa o croce* ("head or cross"). In Germany the game is called *Kopf oder Zahl* ("head or number", because the other side shows the coin's value). In Ireland it is usually called *Heads or Harps*, since the obverse side of Irish coins (both Euro and the former currency, the Irish punt) always shows a harp. In Brazil, it is called *Cara ou Coroa* ("face or crown"). On Brazilian coins, one of the sides are called *Cara*(marked with a face); the other side is called *Coroa*(crown, or another symbol). In Mexico it is called *Aguila o Sol* (Eagle or Sun). In Russia it is called *@Q; 8;8 @5H:0* (*Oryól ili réshka* - eagle, or another symbol). In Hong Kong, it is called *lšW* ("Head or word"). On Hong Kong coins, the obverse side of the coin is basically words that said the amount of the coin. The reverse side, however, is flower. Although the reverse side is not a head anymore, Hong Kong citizens still use that term to call the game.

## See also

- gambling
- coin flipping

# Razzle

Razzle is a game sometimes presented on carnival midways. This generic name is seldom known to players as it is generally presented as Football, Ten Points Win, Baseball, Mo-Co, Indian Poker, Cajun Bingo or other name selected to generate interest for the locals.

Razzle consists of playing board with numbered holes, averaging 120, upon which eight marbles are spilled from a cup. The numbers are added to a total and that total is displayed on a chart, that looks something like a calendar, with the value for that number displayed beneath it. The player does not have to win or lose each play but can incrementally progress through the game to an ultimate win.

The best part of the game is that more than one prize can be won in a game. All the player must do is score a certain number, usually 29, to win additional prizes.

All regular Razzle players try for 29. Besides awarding additional prizes, the prizes are guaranteed to the player together with the player's investment in the game upon successful completion of the game. Not many games offer such a generous proposition. After scoring 29, the only way a player loses is to drop dead or quit before finishing the game.

Unfortunately, almost all Razzle games are not run honestly. The "10 points or more" chart is the secret. The numbers most likely to come up are worthless or only indicate that you have to double or increase the bet. Most dishonest razzle games also rely on a fast count by the game operator to trick the player into believing he either has a better or worse number total than he actually rolled.

The only way the game operator (carnie) can lose is when the player runs out of money or calls the police. Razzle falls into the category of carnival games known as "flats" or "two way" joints ("joint" is the term for a carnival game). The "two way" refers to the ability of the operator to run the game fairly or dishonestly.

## Fixed-odds gambling

*Fixed-odds gambling* is a form of gambling against odds offered by a bookmaker, an individual, or on a bet exchange.

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## Calculating fixed odds

It is customary with fixed-odds gambling to know the expected odds at the time of the placement of the wager (the "live price"), however this category also accommodates wagers whose price is determined only after the race or game has taken place (the "starting price"). It is ideal for a bookmaker to price up a book such that the net outcome will always be in his favour, i.e. the sum of all possible outcomes will be in excess of 100%. The amount of the sums wagered in excess of 100% represent profit to the bookmaker in the event of a balanced book. This excess is known commonly as an overround. In the case of an imbalanced book, the bookmaker will have to pay out more winnings than what is staked, or he will earn more than mathematically expected. This may happen since there is no way for a bookmaker to know the true probabilities for the outcome of competitions left to human effort, and the fixed odds therefore being compiled on the basis of his personal view and knowledge.

With the advent of internet and bet exchange betting, the possibility of fixed-odds arbitrage actions and Dutch books against bookmakers and exchanges has expanded significantly. Betting exchanges in particular act like a stock exchange, allowing the odds to be set in the course of trading between individual bettors, usually leading to quoted odds that are reasonably close to the "true odds."

In making a bet where your expected value is positive, you are said to be getting "the best of it". For example, if you were to bet \$1 at 10 to 1 odds (you could win \$10) on the outcome of a coin flip, you would be getting "the best of it" and you should always make the bet. However if someone offered you odds of 10 to 1 that a card chosen at random from a regular 52 card deck would be the ace of spades, then you would be getting "the worst of it" because the chance is only 1 in 52 that the ace will be chosen. It is mathematically incorrect to make a bet where you are getting "the worst of it."

When making a bet where you must put more at stake than you stand to win, you are laying the odds or laying the bet. So, for example, if you bet \$1000 that it will rain tomorrow, and if you win you will only win \$200 but if you lose you will lose your entire \$1000, then you are laying a bet. It is possible that you could be getting "the best of it" or "the worst of it" when you lay a bet; the fact that you are laying a bet does not necessarily mean you are getting "the worst of it". A lay bet is a bet that something won't happen, so if you lay \$50 on a horse then you are betting the horse won't win.

## Types of odds offered

There are three widely-used means of quoting odds:

### Fractional odds

Favoured by bookmakers in the United Kingdom, fractional odds quote the net total that will be paid out to the bettor, should he win, relative to his stake. Odds of 4/1 (read "four-to-

one" or "four-to-one against") would imply that the bettor stands to make a \$400 profit on a \$100 stake. If the odds are 1/4 (read "four-to-one on"), the bettor will make \$25 on a \$100 stake. The bettor always receives his original stake back, so if the odds are 4/1 you would actually receive a total of \$500 in return upon winning a \$100 bet (\$400 plus the original \$100.) Odds of 1/1 are often called evens.

Fractional odds are also known as British odds, UK odds or in that country, traditional odds.

## **Decimal odds**

Favoured in continental Europe and Canada, decimal odds differ from fractional odds in that they quote the amount that will be paid out to the bettor, multiplied by and including his stake. Therefore, the decimal odds of an outcome are equivalent to the decimal value of the fractional odds, plus one, and even odds would be quoted as 2. The 4/1 fractional odds discussed above would be quoted as 5, while the 1/4 odds would be quoted as 1.25. This is considered to be ideal for parlay betting, because the odds to be paid out are simply the product of the odds for each outcome wagered on. Decimal odds are also favoured by betting exchanges because they are the easiest to work with for trading.

Decimal odds are also known as European odds, or continental odds in the UK.

## **Moneyline odds**

Moneyline odds are favoured by American bookmakers. If the figure quoted is negative, then the moneyline odds are quoting how much money must be wagered to win \$100 - this is done if the odds are worse than even. If the figure quoted is positive, the odds are quoting how much money will be won on a \$100 wager - this is done if the odds are better than even. Even odds can either be quoted as \$100 or -\$100. Fractional odds of 4/1 would be quoted as (+)\$400, while fractional odds of 1/4 would be quoted as -\$400.

Moneyline odds are often referred to as American odds. Moneyline refers to odds on the straight-up outcome of a game with no consideration to a point spread.

## **See also**

- Parimutuel betting

**Categories:** Sports betting | Wagering



# Greyhound racing

*Greyhound racing* is the sport of racing greyhounds. The dogs chase a lure (an artificial hare or rabbit) on a track until they arrive at the finish line. The one that arrives first is the winner.

In many countries, greyhound racing is purely amateur and conducted for enjoyment. In other countries (particularly the US, UK, and Australia), greyhound racing is a popular form of parimutuel gambling, similar to horse racing. There is some popular concern in the latter countries regarding the well-being of the dogs; the effectiveness of industry efforts to address these concerns is controversial. A greyhound adoption movement has arisen to assist retired racing dogs in finding homes as pets.

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## History

Modern greyhound racing has its origins in coursing. The first recorded attempt at racing greyhounds on a straight track was made beside the Welsh Harp reservoir, Hendon in 1876, but this experiment did not develop. The sport emerged in its recognizable modern form, featuring circular or oval tracks, with the invention of the mechanical or artificial hare 1912 by Owen Patrick Smith. O.P. Smith had altruistic aims for the sport to stop the killing of the jack rabbits and see "greyhound race as we see horses". The certificates system led way to parimutuel betting, as quarry and on-course gambling, in the United States during the 1920s. In 1926, armed with the Smith patents and a hand shake, it was introduced to Britain by an American, Charles Munn, in association with Major Lyne-Dixon, a key figure in coursing, and Brigadier-General Critchley. The deal went sour with Smith never hearing from Munn again. Like the American, International Greyhound Racing Association, the In.G.R.A. Munn and Critchley launched the Greyhound Racing Association, and held the first British meeting at Manchester's Belle Vue. The sport was successful in cities and town throughout the U.K. - by the end of 1927, there were forty tracks operating. The sport was particularly attractive to predominantly male working-class audiences, for whom the urban locations of the tracks and the evening times of the meetings were accessible, and to patrons and owners from various social backgrounds. Betting has always been a key ingredient of greyhound racing, both through on-course bookmakers and the totalisator, first introduced in 1930. Like horse racing, it is popular to bet on the greyhound races as a form of parimutuel gambling.

In common with many other sports, greyhound racing enjoyed its highest attendances just after the Second World War—for example, there were 34 million paying spectators in

1946. The sport experienced a decline from the early 1960s, when the 1960 Betting and Gaming Act permitted off-course cash betting, although sponsorship, limited television coverage, and the later abolition of on-course betting tax have partially offset this decline.

Greyhound racing is undergoing a resurgence in popularity as more and more people discover it as both a sport and a form of gambling.

## **Greyhound racing today**

Today greyhound racing continues in many countries around the world. The main greyhound racing and gambling countries are:

- Australia

Ireland

United Kingdom

- United States In the United States there are greyhound tracks in the following 15 states

- Alabama

Arizona

Arkansas

Florida

Colorado

Connecticut

Iowa

Kansas

Massachusetts

New Hampshire

Oregon

Rhode Island

Texas

West Virginia

Wisconsin

- New Zealand

Smaller scale greyhound racing is ongoing in:

- Many European Countries

Argentina

Brazil

China (only in Macau)

Mexico

Spain

Pakistan

Vietnam

## **Treatment of racing dogs**

## **Living Conditions**

In many of the countries where there are large greyhound race tracks with gambling, the dogs live in kennels at or near the track or by their trainers.

In the United States, the kennels are indoor crates stacked two levels high, with the females usually kept on the upper level, and males on the lower level. While the space allocated to each dog varies between locations, typical crate size is 3-1/2 feet wide by 4 feet deep by 3 feet high. While living on the track these dogs will spend most of their time in these kennels.

In several European countries (Belgium, Denmark, Czech Republic, Finland, France, Germany, Hungary, Netherlands, Sweden, Switzerland) greyhound racing is carried out by the owners of the dogs without financial interest. This amateur form of the sport is also found in some countries, such as the United States, where professional racing exists. In these countries the dogs often live as pets.

## **In Australia**

In Australia greyhounds live in kennels at night that meet guidelines set by The Greyhound Racing Authorities in Australia, and by day many greyhounds are put into running yards or day yards to keep them entertained and exercised. This is aimed to keep greyhounds as fit, happy, and healthy as possible.

Greyhounds are checked for parasites, malnourishment, or any other medical conditions by an on-course vet before being able to compete.

The Greyhound Racing Authorities in Australia regulates greyhound welfare and living conditions and all racing authorities in Australia finance Greyhound Adoption Groups, which house dozens of greyhounds a month.

## **Medical Care**

In places that allow gambling on Greyhound racing the owners often treat the dogs as short-term investments. This often means that the care they receive is intended only to help them perform on the track, not for their long-term health. Greyhound adoption groups frequently report that the dogs from the tracks have tooth problems the cause of which is debated although it is likely related to either a low-quality raw meat diet or damage to the gums from chewing on metal cage bars. The groups often also find that the dogs carry tick-borne diseases and parasites due to the lack of proper preventative treatments. Due to the dense living conditions in the kennels, the dogs require regular vaccination to minimize outbreaks of diseases like kennel cough.

After the dogs are no longer able to race (generally, a greyhound's career will end by the age of three or four), owners either keep the dog for breeding or dispose of the dog. They

will sometimes kill the ex-racing greyhounds if they do not want to go through the expense of finding the dogs homes. The ratio of dogs killed to those adopted is greatly debated. There is much debate between the racing industry and anti-racing activists about the quality of the dog's care making the exact details hard to determine.

Recently, doping has also emerged as a problem in Greyhound racing. The racing industry is actively working to prevent the spread of this practice; attempts are made to recover urine samples from all greyhounds in a race, not just the winners. Greyhounds from which samples can not be obtained for a certain number of consecutive races are subject to being ruled off the track. Violators are subject to criminal penalties and loss of their racing licenses by state gaming commissions and a permanent ban from the National Greyhound Association. The trainer of the greyhound is at all times the "absolute insurer" of the condition of the animal. The trainer is responsible for any positive test regardless of how the banned substance has entered the greyhound's system.

Several organizations, such as British Greyhounds Retired Database, Adopt-a-Greyhound and National Greyhound Adoption Program, try to ensure that as many of the dogs as possible are adopted. Some of these groups also advocate better treatment of the dogs while at the track and/or the end of racing for profit. In recent years the racing industry has made significant progress in establishing programs for the adoption of retired racers. In addition to actively cooperating with private adoption groups throughout the country, many race tracks have established their own adoption programs at various tracks.

In recent years, several state governments in the United States have passed legislation to improve the treatment of racing dogs in their jurisdiction.

In venues where greyhound racing does not involve gambling, the dogs are almost invariably pets and are, therefore, generally well treated.

## **Jai alai**

*Jai-Alai* (pronounced hi-lie in English and hi-ah-lie in Basque) means "Merry Festival" in the Basque language. The term is used to denote a fronton (or open-walled arena) used to play a variety of Pelota called Cesta Punta, and, more broadly, to the game itself. The game is characterized by the fast pace of play, in which a 125g ball covered with parchment skin can travel faster than 180 mph. The ball is placed into play and volleyed by players wearing a wicker basket glove approximately 63 to 70 cm long.

The glove, known as a Cesta-punta (in Spanish) or xistera (Basque), was invented by the French Basque Gantchiqui Diturbide (also Gantxiki Iturbide) in the 19th century.

## **Rules and Play**

The court (or fronton) for Jai Alai consists of 3 walls (front, back, and left), and the floor between them in play. If the ball touches the floor outside these walls, it is considered out of bounds. Similarly, there is also a border going about 3ft inside the front wall that is also out of bounds. The ceiling on the court is very high, so the ball has a more predictable path.

The court is divided by 15 lines going horizontally across the court, with line 1 closest to the front wall and line 15 the back wall. When serving, the server must bounce the ball behind the serving line, then with the basket hurl it towards the front wall so it bounces between lines 4 and 7 on the rebound.

The goal in Jai Alai is to score 7 points, thus winning the game. Points are scored by the other team dropping, missing, juggling, bobbling or sending the ball out of bounds. The game is played in a round-robin format, switching teams every point, where the team to score a point stays up and the opposing team rotating out into the end of the list of opponents.

## **Geographic distribution**

In countries such as France, Spain and Mexico the game of jai-alai is popular; in some regions, the game is played in almost every town and city.

In the United States, jai-alai enjoyed some popularity as a gambling alternative to horse racing and remains popular in Florida, where the game is used as a basis for parimutuel gambling.

By contrast, jai-alai's popularity in the north-eastern and western United States waned as other gambling options became available. Frontons in the Connecticut towns of Hartford and Milford permanently closed, while the fronton in Bridgeport was converted to a Greyhound race track. A fronton in Newport, Rhode Island has been converted to a general gaming facility.

Jai-alai enjoyed a brief and popular stint in Las Vegas, Nevada with the opening of a fronton at the MGM Grand Casino and Hotel; however, by the early 1980s the fronton was losing money and was closed by MGM Grand owner Kirk Kerkorian.

In an effort to prevent the closure of frontons in Florida, the Florida State Legislature passed HB 1059, a bill that changed the rules regarding the operation and wagering of poker in a Pari-Mutuel facility such as a jai-alai fronton and a greyhound and horseracing track. The bill became law on August 6, 2003.

The United Auto Workers Local 8868 is the recognized bargaining agent for jai-alai players and fronton employees in Florida. The union also represented jai-alai players and fronton employees in Connecticut until its three frontons permanently closed, and in Rhode Island where at the behest of the gaming facility owners, the Rhode Island State Legislature abolished legalized jai-alai in favour of video lottery terminals.

# Football

*Football* is the name given to a number of different, but related, team sports. By far the most popular of these worldwide is Association football, which also goes by the name of soccer. The English language word football is also applied to Rugby football (Rugby union and Rugby league), North American football (American and Canadian), Australian rules football, and Gaelic football.

While it is widely believed that the word football, or "foot ball", originated in reference to the action of a foot kicking a ball, there is a rival explanation, which has it that football originally referred to a variety of games in medieval Europe, which were played on foot.[1] These games were usually played by peasants, as opposed to the horse-riding sports often played by aristocrats. While there is no conclusive evidence for this explanation, the word football has always implied a variety of games played on foot, not just those that involved kicking a ball. In some cases, the word football has been applied to games which have specifically outlawed kicking the ball.

All football games involve scoring with a spherical or ellipsoidal ball (itself called a football), by moving the ball into, onto, or over a goal area or line defended by the opposing team. Many of the modern games have their origins in England, but many peoples around the world have played games which involved kicking and/or carrying a ball since ancient times.

The object of all football games is to advance the ball by kicking, running with, or passing and catching, either to the opponent's end of the field where points or goals can be scored by, depending on the game, putting the ball across the goal line between posts and under a crossbar, putting the ball between upright posts (and possibly over a crossbar), or advancing the ball across the opponent's goal line while maintaining possession of the ball.

In all football games, the winning team is the one that has the most points or goals when a specified length of time has elapsed.

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## History

For the history of only Association Football

Throughout the history of mankind the urge to kick at stones and other such objects is thought to have led to many early activities involving kicking and/or running with a ball. Football-like games predate recorded history in all parts of the world, though the earliest forms of football are not known.

## Ancient games

Documented evidence of what is possibly the oldest organized activity resembling football can be found in a Chinese military manual written during the Han Dynasty in about 2nd century BC.

It describes a practice known as cuju (Traditional Chinese: 蹴鞠; Simplified Chinese: 蹴鞠; Pinyin: cù jū) which involved kicking a leather ball through a hole in a piece of silk cloth strung between two 30 foot poles. Another Asian ball-kicking game, which may have been influenced by cuju, is kemari. This is known to have been played within the Japanese imperial court in Kyoto from about 600 AD. In kemari several individuals stand in a circle and kick a ball to each other, trying not to let the ball drop to the ground (much like keepie uppie). The game survived through many years but appears to have died out sometime before the mid 19th century. In 1903 in a bid to restore ancient traditions the game was revived and it can now be seen played for the benefit of tourists at a number of festivals.

The Greeks and Romans are known to have played many ball games some of which involved the use of the feet. The Roman writer Cicero describes the case of a man who was killed whilst having a shave when a ball was kicked into a barbers shop. The Roman game of Harpastum is believed to have been adapted from a team game known as "μῆλα ἄλκιμα" (episkyros) or pheninda that is mentioned by Greek playwright, Antiphanes (388-311BC)

and later referred to by Clement of Alexandria. The game appears to have vaguely resembled rugby.

There are a number of less well-documented references to prehistoric, ancient or traditional ball games, played by indigenous peoples all around the world. For example, William Strachey of the Jamestown settlement is the first to record a game played by the Native Americans called Pahsaheman, in 1610. In Victoria, Australia, Indigenous Australians played a game called Marn Grook. An 1878 book by Robert Brough-Smyth, *The Aborigines of Victoria*, quotes a man called Richard Thomas as saying, in about 1841, that he had witnessed Aboriginal people playing the game: "Mr Thomas describes how the foremost player will drop kick a ball made from the skin of a possum and how other players leap into the air in order to catch it." It is widely believed that Marn Grook had an influence on the development of Australian Rules Football (see below). In northern Canada and/or Alaska, the Inuit (Eskimos) played a game on ice called Aqsaqtuk. Each match began with two teams facing each other in parallel lines, before attempting to kick the ball through each other team's line and then at a goal. The ancient Aztec game of ollamalitzli also involved kicking a ball, but it generally had more similarities to basketball.

These games and others may well far back into antiquity and have influenced football over the centuries. However, the route towards the development of modern football games appears to lie in Western Europe and particularly England.

## **Mediæval football**

The Middle Ages saw a huge rise in popularity of annual Shrovetide football matches throughout Europe, particularly in England. The game played in England at this time may have arrived with the Roman occupation, but there is little evidence to indicate this. Reports of a game played in Brittany, Normandy and Picardy, known as Choule or Soule, suggest that some of these football games could have arrived in England as a result of the Norman Conquest.

These archaic forms of football would be played between neighbouring towns and villages, involving an unlimited number of players on opposing teams, who would clash in a heaving mass of people struggling to drag an inflated pig's bladder by any means possible to markers at each end of a town (sometimes instead of markers, the teams would attempt to kick the bladder into the balcony of the opponents' church). A legend that these games in England evolved from a more ancient and bloody ritual of kicking the "Dane's head" is unlikely to be true. Shrovetide games survive in a number of English towns (see below).

The first description of football in England was given by William FitzStephen (c. 1174-1183). He described the activities of London youths during the annual festival of Shrove Tuesday.

*After lunch all the youth of the city go out into the fields to take part in a ball game. The students of each school have their own ball; the workers from each city craft are also carrying their balls. Older citizens, fathers, and wealthy citizens come on horseback to watch their juniors competing, and to relive their own youth vicariously: you can see their inner passions*



*aroused as they watch the action and get caught up in the fun being had by the carefree adolescents.*

Most of the early references to the game speak simply of "ball play" or "playing at ball". This reinforces the idea that the games played at the time did not necessarily involve a ball being kicked. The first clear reference to football was not recorded until 1409, when King Henry IV of England issued an edict to ban it. In 1424, King James I of Scotland also attempted to ban the playing of "fute-ball". However, the first clear reference to a ball being used did not occur until 1486.

The first reference to football in Ireland occurs in the Statute of Galway of 1527, which allowed the playing of football and archery but banned "hokie' — the hurling of a little ball with sticks or staves" as well as other sports. (The earliest recorded football match in Ireland was one between Louth and Meath, at Slane, in 1712.)

## **Calcio Fiorentino**

In the 16th century, the city of Florence celebrated the period between Epiphany and Lent by playing a game known as "o Calcio storico" ("kickball in costume") in the Piazza della Novere or the Piazza Santa Croce. The young aristocrats of the city would dress up in fine silk costumes and embroil themselves in a violent form of football. For example, calcio players could punch, shoulder charge, and kick opponents. Blows below the belt were allowed. The game is said to have originated as a military training exercise. The most famous match took place on February 17, 1530. While the troops of Charles V, Holy Roman Emperor were besieging Florence, a game of calcio was organised as a show of defiance. In 1580, Count Giovanni de' Bardi di Vernio wrote *Discorso sopra 'l giuoco del Calcio Fiorentino*. This is sometimes credited as the earliest known published rules of any football game. The game was not played between January 1739 and May 1930, when it was revived to celebrate the 400th anniversary of the match mentioned above. Calcio is still played, mostly as a tourist attraction.

## **Official disapproval and attempts to ban football**

Numerous attempts have been made to ban football games, particularly the most rowdy and disruptive forms. This was especially the case in England and in other parts of Europe, during the Middle Ages and early modern period. Between 1324 and 1667, football was banned in England alone by more than 30 royal and local laws. The need to repeatedly proclaim such laws demonstrated the difficulty in enforcing bans on popular games.

King Edward II was so troubled by the unruliness of football in London that on April 13, 1314 he issued a proclamation banning it: "Forasmuch as there is great noise in the city caused by hustling over large balls from which many evils may arise which God forbid; we command and forbid, on behalf of the King, on pain of imprisonment, such game to be used in the city in the future."

The reasons for the ban by Edward III, on June 12, 1349, were explicit: football and other recreations distracted the populace from practicing archery, which was necessary for war.

By 1608, the local authorities in Manchester were complaining that: "With the ffotebale...[there] hath beene greate disorder in our towne of Manchester we are told, and glasse windowes broken yearlye and spoyled by a companie of lewd and disordered persons ..." That same year, the word "football" was used disapprovingly by William Shakespeare. Shakespeare's play King Lear contains the line: "Nor tripped neither, you base football player" (Act I Scene 4). Shakespeare also mentions the game in A Comedy of Errors (Act II Scene 1):

*Am I so round with you as you with me,*

*That like a football you do spurn me thus?*

*You spurn me hence, and he will spurn me hither:*

*If I last in this service, you must case me in leather.*

"Spurn" literally means to kick away, thus implying that the game involved kicking a ball between players.

However the game of hurling (where players use a curved wooden stick to play a small ball) played in Ireland, was considered so violent that the Galway City authorities would rather the people played football. In 1527 they stated "At no time to use ne occupy ye hurling of ye litill balle with the hookie sticks or staves, nor use no hand balle to play without the walls, but only the great foot balle."

## **The establishment of modern codes of football**

### **English public schools**

The earliest evidence that games resembling football were being played at English public schools — mainly attended by boys from the upper, upper-middle and professional classes — comes from the *Vulgaria* by William Horman in 1519. Horman had been headmaster at Eton and Winchester Colleges and his Latin textbook includes a translation exercise with the phrase "We wyll playe with a ball full of wynde".

There is evidence that sophisticated games resembling the modern codes were being played in Britain by the early 17th century. In 1633, David Wedderburn, a teacher from Aberdeen, described one such match: "Let's pick sides. Those who are on the outside, come over here. Kick off, so that we can begin the match... Pass it here."

The first specific mention of football at public schools can be found in a Latin poem by Robert Matthew, a Winchester scholar from 1643 to 1647. He describes how "...we may play quoits, or hand-ball, or bat-and-ball, or football; these games are innocent and lawful...". *Nugae Etonenses* (1766) by T. Frankland also mentions the "Football Fields" at Eton.

By the early 19th century, (before the Factory Act of 1850), most working class people in Britain had to work six days a week, often for over twelve hours a day. They had neither the time nor the inclination to engage in sport for recreation and, at the time, many children were part of the labour force. Feast day football on the public highway was at an end. Thus the public school boys, who were free from constant toil, became the inventors of organised football games with formal codes of rules. These gradually evolved into the modern football games that we know today.

Football had come to be adopted by a number of public schools as a way of encouraging competitiveness and keeping youths fit. Each school drafted their own rules to suit the dimensions of their playing field. The rules varied widely between different schools and were changed over time with each new intake of pupils. Soon, two schools of thought about how football should be played emerged. Some schools favoured a game in which the ball could be carried (as at Rugby, Marlborough and Cheltenham), whilst others preferred a game where kicking and dribbling the ball was promoted (as at Eton, Harrow, Westminster and Charterhouse). The division into these two camps was partly the result of circumstances in which the games were played. At Charterhouse and Westminster the boys were confined to playing their ball game within the cloisters making the rough and tumble of the handling game difficult.

William Webb Ellis, a pupil at Rugby school, is said to have "showed a fine disregard for the rules of football, as played in his time" by picking up the ball and running to the opponents' goal in 1823. This act is popularly said to be the beginnings of Rugby football, but the evidence for this bold act does not stand up to close examination and most sports historians believe the story to be apocryphal. Nevertheless, by 1841 (some sources say 1842), running with the ball had become acceptable at Rugby, as long as a player gathered the ball on the full or from a bounce, he was not offside and he did not pass the ball.

The boom in rail transport in Britain during the 1840s meant that people were able to travel further and with less inconvenience than they ever had before. Inter-school sporting competitions became possible. While local rules for athletics could be easily understood by visiting schools, it was nearly impossible for schools to play each other at football, as each school played by its own rules.

During this period, the Rugby school rules appear to have spread at least as far, perhaps further, than the other schools' games. For example, two clubs which claim to be the world's first and/or oldest football club, in the sense of one which is not part of a school or university, are both strongholds of rugby football: the Barnes Club, said to have been founded in 1839, and Guy's Hospital Football Club, reportedly founded in 1843. Neither date nor the variety of football played is well-documented, but such claims nevertheless allude to the popularity of rugby before other modern codes emerged.

In 1845, three boys at Rugby school were tasked with codifying the rules then being used at the school. These were the first set of written rules (or code) for any form of football[2]. This further assisted the spread of the Rugby game.

## **The Cambridge Rules**

In 1848 at Cambridge University, Mr. H. de Winton and Mr. J.C. Thring, who were both formerly at Shrewsbury School, called a meeting at Trinity College, Cambridge with 12 other representatives from Eton, Harrow, Rugby, Winchester and Shrewsbury. An eight-hour meeting produced what amounted to the first set of modern rules, known as the Cambridge Rules. No copy of these rules now exists, but a revised version from circa 1856 is held in the library of Shrewsbury School. The rules clearly favour the kicking game. Handling was only allowed for a player to take a clean catch entitling them to a free kick and there was a primitive offside rule, disallowing players from "loitering" around the opponents' goal. However, the Cambridge Rules were not widely adopted.

### **Other developments in the 1850s**

The increasing interest and development of the various English football games was shown in 1851, when William Gilbert, a shoemaker from Rugby, exhibited both round and oval-shaped balls at the Great Exhibition in London.

Dublin University Football Club — founded at Trinity College, Dublin in 1854 and later famous as a bastion of the Rugby School game — is arguably the world's oldest football club in any code.

Sheffield Football Club also has a claim to be the world's oldest football club, in the sense of a club not attached to a school or university. It was founded by former Harrow School pupils Nathaniel Creswick and William Prest, in 1857. Creswick and Prest devised their own version of football: the Sheffield Rules. There were some similarities to the Cambridge Rules, but players were allowed to push or hit the ball with their hands, and there was no offside rule at all, so that players known as 'kick throughs' could be permanently positioned near the opponents' goal. In 1867 the Sheffield Football Association was formed by a number of clubs in the local area and the Sheffield clubs continued to play by their own rules until they agreed to fall in with the FA rules in 1877.

By the end of the 1850s, many clubs had been formed throughout the English-speaking world, to play various codes of football.

### **Australian rules football**

Tom Wills began to develop Australian football in Melbourne during 1858. Wills had been educated in England, at Rugby School and had played cricket for Cambridge University. The extent to which Wills was directly influenced by British and Irish football games is unknown, but there were similarities between some of them and his game. There were pronounced similarities between Wills's game and Gaelic football (as it would be codified in 1887). It appears that Australian football also has some similarities to the Indigenous Australian game of Marn Grook (see above).

The Melbourne Football Club was also founded in 1858 and is the oldest surviving Australian football club, but the rules it used during its first season are unknown. The club's rules of 1859 are the oldest surviving set of laws for Australian Rules. They were drawn up

at the Parade Hotel, East Melbourne on 17 May, by Wills, W.J. Hammersley, J.B. Thompson and Thomas Smith (some sources include H.C.A. Harrison). These men had similar backgrounds to Wills and their code also had pronounced similarities to the Sheffield rules, most notably in the absence of an offside rule (although the similarities were probably coincidental). A free kick was awarded for a mark (clean catch). However, running while holding the ball was allowed and although it was not specified in the rules, an oval ball (like those later used in rugby) was used. The club had a strong and long-standing association with the Melbourne Cricket Club and cricket ovals — which vary in size and are much larger than the fields used in other forms of football — became the standard playing field. The 1859 rules did not include some elements which would soon become important to the game, such as the requirement to bounce the ball while running.

Australian rules is sometimes said to be the first form of football to be codified but — as was the case in all kinds of football at the time, there was no official body supporting the rules — and play varied from one club to another. By 1866, however, several other clubs in the Colony of Victoria had agreed to play an updated version of the Melbourne FC rules, which were later known as "Victorian Rules" and/or "Australasian Rules". The formal name of the code later became Australian rules football (and, more recently, Australian football).

## **The Football Association**

During the early 1860s, there were increasing attempts in England to unify and reconcile the various public school games. In 1862, J. C. Thring, who had been one of the driving forces behind the original Cambridge Rules, was a master at Uppingham School and he issued his own rules of what he called "The Simplest Game" (these are also known as the Uppingham Rules). In early October 1863 another new revised version of the Cambridge Rules was drawn up by a seven member committee representing former pupils from Harrow, Shrewsbury, Eton, Rugby, Marlborough and Westminster.

On the evening of October 26, 1863, representatives of several football clubs in the Greater London area met at the Freemason's Tavern in Great Queen Street. This was the first meeting of The Football Association (FA). It was the world's first official football body. Charterhouse was the only school which accepted invitations to attend. The first meeting resulted in the issuing of a request for representatives of the public schools to join the association. With the exception of Thring at Uppingham, most schools declined. In total, six meetings of the FA were held between October and December 1863. After the third meeting, a draft set of rules were published by the FA. However, at the beginning of the fourth meeting, attention was drawn to the recently-published Cambridge Rules of 1863. The Cambridge rules differed from the draft FA rules in two significant areas; namely running with (carrying) the ball and hacking (kicking opposing players in the shins). The two contentious FA rules were as follows:

*IX. A player shall be entitled to run with the ball towards his adversaries' goal if he makes a fair catch, or catches the ball on the first bound; but in case of a fair catch, if he makes his mark he shall not run.*

*X. If any player shall run with the ball towards his adversaries' goal, any player on the opposite side shall be at liberty to charge, hold, trip or hack him, or to wrest the ball from him, but no player shall be held and hacked at the same time.*

At the fifth meeting a motion was proposed that these two rules be removed from the FA rules. Most of the delegates supported this suggestion but F. W. Campbell, the representative from Blackheath and the first FA treasurer, objected strongly. He said, "hacking is the true football". The motion was carried nonetheless and — at the final meeting — Campbell withdrew his club from the FA. After the final meeting on 8 December the FA published the "Laws of Football", the first comprehensive set of rules for the game later known as Association football (later known in some countries as soccer).

These first FA rules still contained elements that are no longer part of Association football, but which are still recognisable in other games: for instance, a player could make a fair catch and claim a mark, which entitled him to a free kick, and; if a player touched the ball behind the opponents' goal line, his side was entitled to a free kick at goal, from 15 yards in front of the goal line.

## **Rugby football**

In Britain, by 1870, there were about 75 clubs playing variations of the Rugby school game, including Blackheath (founded in 1858 and arguably the world's oldest surviving, non-university rugby club). There were also "rugby" clubs in Ireland, Australia, Canada and New Zealand. However, there was no generally accepted set of rules for rugby until 1871, when 21 clubs from London came together to form the Rugby Football Union (RFU). (Ironically, Blackheath now lobbied to ban hacking.) The first official RFU rules were adopted in June 1871. These rules allowed passing the ball. They also included the try, where touching the ball over the line allowed an attempt at goal, though drop-goals from marks and general play, and penalty conversions were still the main form of contest.

## **North American football**

### **Main articles: American football**

As was the case in Britain, by the early 19th century, North American schools and universities played their own local games, between sides made up of students. By the 1820s, a game known as Ballown was being played at the College of New Jersey (later known as Princeton University) and Old Division Football was being played at Dartmouth College, New Hampshire. In 1827, a Harvard University student composed a humorous epic poem called *The Battle of the Delta*, one of the first accounts of football in American universities.

The first documented football match in Canada was a game played at University College, University of Toronto on November 9, 1861. A football club was formed at the university soon afterwards, although its rules of play at this stage are unclear: it is not known whether they played a kicking or handling game, or both, and its members mostly played against each other.

The first "football club" in the USA was the short-lived Oneida Football Club in Boston, Massachusetts, founded in 1862. It has often been said that this club was the first to play soccer outside Britain. However, the rules that the Oneida club used are also unknown, and it was formed before the FA rules were formulated. The club may have invented the "Boston Game", a running code which was being played several years later in Massachusetts.

In 1864, at Trinity College, Toronto, F. Barlow Cumberland and Frederick A. Bethune devised rules based on the Rugby school game. However, the first game of "rugby" in Canada is generally said to have taken place in Montreal, in 1865, when British Army officers played local civilians. The game gradually gained a following, and the Montreal Football Club was formed in 1868, the first recorded football club in Canada.

The first match generally said to have occurred under English FA (soccer) rules in the USA was a game between Princeton and Rutgers in 1869. This is also often considered to be the first US game of college football, in the sense of a game between colleges (although the eventual form of American football would come from rugby, not soccer).

Modern American football grew out of a match between McGill University of Montreal, and Harvard University in 1874. At the time, Harvard students are reported to have played the "Boston Game" — a running code — rather than the FA-based kicking games favored by US universities. This made it easy for Harvard to adapt to the rugby-based game played by McGill and the two teams alternated between their respective sets of rules. Within a few years, however, Harvard had both adopted McGill's rugby rules and had persuaded other US university teams to do the same. In 1876, at the Massasoit Convention, it was agreed by these universities to adopt most of the Rugby Football Union rules. However, a touch-down (as it was also known in rugby football at the time) only counted toward the score if neither side kicked a field goal. The convention decided that, in the US game, four touchdowns would be worth one goal; in the event of a tied score, a goal converted from a touchdown would take precedence over four touch-downs.

Princeton, Rutgers and others continued to compete using soccer-based rules for a few years before switching to the rugby-based rules of Harvard and its competitors. US colleges did not generally return to soccer until the early twentieth century.

In 1880, Yale coach Walter Camp, devised a number of major changes to the American game, beginning with the reduction of teams from 15 to 11 players, followed by reduction of the field area by almost half, and; the introduction of the scrimmage, in which a player heeled the ball backwards, to begin a game. These were complemented in 1882 by another of Camp's innovations: a team had to surrender possession if they did not gain five yards after three downs (i.e. successful tackles).

Over the years Canadian football absorbed some developments in American football, but also retained many unique characteristics. One of these was that Canadian football, for many years, did not officially distinguish itself from rugby. For example, the *Canadian Rugby Football Union*, founded in 1884 was the forerunner of the Canadian Football League, rather than a rugby union body. (The Canadian Rugby Union was not formed until 1965.) American football was also frequently described as "rugby" in the 1880s.

## **Gaelic football**

In the mid-19th century, various traditional football games, referred to collectively as *caid*, remained popular in Ireland, especially in County Kerry. One observer, Father W. Ferris, described two main forms of *caid* during this period: the "field game" in which the object was to put the ball through arch-like goals, formed from the boughs of two trees, and; the epic "cross-country game" which took up most of the daylight hours of a Sunday on which it was played, and was won by one team taking the ball across a parish boundary. "Wrestling", "holding" opposing players, and carrying the ball were all allowed.

By the 1870s, Rugby and Association football had started to become popular in Ireland. Trinity College, Dublin was an early stronghold of Rugby (see the Developments in the 1850s section, above). The rules of the English FA were being distributed widely. Traditional forms of *caid* had begun to give way to a "rough-and-tumble game" which allowed tripping.

There was no serious attempt to unify and codify Irish varieties of football, until the establishment of the Gaelic Athletic Association (GAA) in 1884. The GAA sought to promote traditional Irish sports, such as hurling and to reject "foreign" (particularly English) imports. The first Gaelic football rules were drawn up by Maurice Davin and published in the United Ireland magazine on February 7, 1887. Davin's rules showed the influence of games such as hurling and a desire to formalise an Irish code of football distinct from Rugby and Association football. The prime example of this differentiation was the lack of an offside rule (an attribute which, for many years, was shared only by other Irish games like hurling, and by Australian rules football).

## **The split in rugby football**

The International Rugby Football Board (IRFB) was founded in 1886, but rifts were beginning to emerge in the code. Professionalism was beginning to creep into the various codes of football.

In Britain, by the 1890s, a long-standing Rugby Football Union ban on professional players was causing regional tensions within rugby football, as many players in northern England were working class and could not afford to take time off to train, travel, play and recover from injuries. This was not very different from what had occurred ten years earlier in soccer in Northern England but the authorities reacted very differently in the RFU, attempting to alienate the working class support in Northern England. In 1895, following a dispute about a player being paid broken time payments, which replaced wages lost as a result of playing rugby, representatives of the northern clubs met in Huddersfield to form the Northern Rugby Football Union (NRFU). The new body initially permitted only various types of player wage replacements. However, within two years, NRFU players could be paid, but they were required to have a job outside sport.

The demands of a professional league dictated that rugby had to become a better "spectator" sport. Within a few years the NRFU rules had started to diverge from the RFU, most notably with the abolition of the line-out. This was followed by the replacement of the ruck with the "play-the-ball ruck", which allowed a two-player ruck contest between the tackler at marker and the player tackled. Mauls were stopped once the ball carrier was held, being replaced by a play-the ball-ruck. The separate Lancashire and Yorkshire competitions



of the NRFU merged in 1901, forming the Northern Rugby League, the first time the name rugby league was used officially in England.

Over time, the RFU form of rugby, played by clubs which remained members of national federations affiliated to the IRFB, became known as rugby union.

### **The globalisation of association football**

The need for a single body to oversee the worldwide game became apparent at the beginning of the 20th century with the increasing popularity of international fixtures. The Football Association had chaired many discussions on setting up an international body, but was perceived as making no progress. It fell to Football Associations the seven other European countries, France, Belgium, Denmark, Netherlands, Spain, Sweden, and Switzerland, to band together to form an international association. The Fédération Internationale de Football Association (FIFA) was founded in Paris on May 21, 1904 — the French name and acronym persist to this day, even outside French-speaking countries. Its first president was Robert Guérin.

### **The reform of American football**

Both forms of rugby and American football were noted at the time for serious injuries, as well as the deaths of a significant number of players. By the early 20th century in the USA, this had resulted in national controversy and American football was banned by a number of colleges. Consequently, a series of meetings was held by 19 colleges in 1905–06. This occurred reputedly at the behest of President Theodore Roosevelt. He was considered a fancier of the game, but he threatened to ban it unless the rules were modified to reduce the numbers of deaths and disabilities. The meetings are now considered to be the origin of the National Collegiate Athletic Association.

One proposed change was a widening of the playing field. However, Harvard University had just built a concrete stadium and therefore objected to widening, instead proposing legalisation of the forward pass. The report of the meetings introduced many restrictions on tackling and two more divergences from rugby: the banning of mass formation plays, as well as the forward pass. The changes did not immediately have the desired effect, and 33 American football players were killed during 1908 alone. However, the number of deaths and injuries did gradually decline.

### **The two rugby codes diverge further**

Rugby league rules diverged significantly from rugby union in 1906, with the reduction of the team from 15 to 13 players. In 1907, a New Zealand professional rugby team toured Australia and Britain, and as a result the New South Wales Rugby League was formed. However the rules of professional rugby varied from one country to another, and negotiations between various national bodies were required to fix the exact rules for each

international match. This situation endured until 1948, when at the instigation of the French league, the Rugby League International Federation (RLIF) was formed at a meeting in Bordeaux.

In the late 20th century, the rules changed further. In 1966, rugby league officials borrowed the American football concept of downs: a team could retain possession of the ball for no more than four tackles. The maximum number of tackles was later increased to six (in 1971), and in rugby league this became known as the six tackle rule.

With the advent of full-time professionals in the early 1990s, and the consequent speeding up of the game, the five metre off-side distance between the two teams became 10 metres, and the replacement rule was superseded by various interchange rules, among other changes.

The rules of rugby union also changed significantly and became very complex and technical during the 20th century. In addition, rucks and mauls became homogenised, and in line-outs players began to be lifted by their teammates to contest their opponents. The advent of professionalism has also helped to complicate rules further.

In 1995, Rugby Union became an "open" game allowing professionalism throughout the affiliate members. Although the original source of dispute between the two codes and despite the fact that ARU officials like John O'Neill have sometimes suggested the idea, the rules of both codes and their culture of football have seemingly diverged so far that such a union does not seem likely to be on the horizon within the foreseeable future.

## **Football today**

### **Use of the word "football" in English-speaking countries**

The word "football", when used in reference to a specific game can mean any one of those described above. Because of this, much friendly controversy has occurred over the term football, primarily because it is used in different ways in different parts of the English-speaking world. Most often, the word "football" is used to refer to the code of football that is considered dominant within a particular region.

In some English-speaking countries, the word "football" usually refers to Association football, also known as "soccer" (the name was originally a slang abbreviation of Association). Of the 45 national FIFA affiliates in which English is an official or primary language, only three (Canada, Samoa and the United States) use "soccer" in their name, while the rest use football (although the Samoan Federation actually uses both). New Zealand Soccer changed its name to Football New Zealand in May 2006. [5] In Australia, the governing body's renaming and increased usage of "football" rather than "soccer" (the name used by most Australians) has caused controversy as the word football has traditionally been used to refer to Australian rules football and rugby league. It should be noted, however, that members of the Australian association football team are still known as the "Socceroos".

The different codes are listed below and are described more fully in their own articles.

## Games descended from the FA rules of 1863

- Association football, also known as football, soccer, footy and footie.
  - Indoor varieties of Association football:
    - Five-a-side football – played throughout the world under various rules including:
      - Futsal – the FIFA-approved Five-a-side indoor game.
    - Indoor soccer – the six-a-side indoor game as played in North America.
  - Paralympic Football – modified association football for disabled competitors.
- Beach soccer – football played on sand, also known as sand soccer.
- Street football – encompasses a number of informal varieties of football.
- Rush goalies is a variation of football in which the role of the goalkeeper is more flexible than normal.
- Keepie uppie is the art of juggling with a football using feet, knees, chest, shoulders, and head.
    - Footbag is a small bean bag or sand bag used as a ball in a number of keepie uppie variations such as *hacky sack*.
  - Freestyle Football a modern take on Keepie uppie where freestylers are graded for their entertainment value and expression of skill.

## Games descended from Rugby School rules

- Rugby football
  - Rugby league – usually known simply as "football" or "footy" in the Australian states of New South Wales and Queensland, and by some followers of the game in England. Also often referred to simply as "league".
  - Rugby Union
    - Rugby Sevens
  - Touch Rugby – a name used for various forms of rugby union and rugby league which do not feature tackles.
    - Touch football (rugby league) – a non-contact version of rugby league; the best-known and most popular form of touch rugby worldwide. In Australia this code is often referred to as *touch football* or *Touch*. In South Africa it is known as *six down*.
  - Tag Rugby – generic name for non-contact forms of rugby league and rugby union, in which a velcro tag is taken to indicate a tackle.
- American football – called "football" in the United States and Canada, and "gridiron" in Australia and New Zealand.
  - Arena football – an indoor version of American football.
  - Touch football (American) – non-tackle American football.

- Flag football – non-tackle American football, like touch football, in which a flag that is held by velcro on a belt tied around the waist is pulled by defenders to indicate a tackle.
- Canadian football – called simply "football" in Canada; "football" in Canada can mean either Canadian or American football depending on context.
  - Canadian flag football – non-tackle Canadian football.

## Australian and Irish varieties of football

- Australian rules football – usually known simply as "football" by fans; although officially *Australian football*, and informally as "Aussie rules" or "footy". In some areas (erroneously) referred to as "AFL", which is the name of the main organising body and competition.
  - Auskick – a version of Australian rules designed by the AFL for young children.
  - Metro Footy (or Metro rules footy) – a modified version invented by the USAFL, for use on gridiron fields in North American cities (which often lack grounds large enough for conventional Australian rules matches).
  - 9-a-side Footy – a more open, running variety of Australian rules, requiring 18 players in total and a proportionally smaller playing area. (Includes contact and non-contact varieties.)
  - Rec Footy – "Recreational Football", a modified non-contact touch variation of Australian rules, created by the AFL, which replaces tackles with tags.
  - Samoa Rules – localised version adapted to Samoan conditions, such as the use of rugby fields.
  - Masters Australian Football (Superules) – reduced contact version introduced for competitions limited to players over 30 years of age.
  - Women's Footy – reduced contact version introduced for women's competition.
- Austus – a compromise between Australian rules and American football, invented in Melbourne during World War II.
- *Gaelic football* – played almost exclusively in Ireland. Often referred to as "football" or "gaah".
- International rules football – a compromise code used for games between Gaelic and Australian Rules players.
- Universal football – A hybrid of Australian rules and rugby league, trialled at the Sydney Showground in 1933.[6]

## Surviving Mediæval ball games

- Traditional Shrove Tuesday matches in the UK – annual town- or village-wide football games with their own rules. Alternative names include *mob football*, *Shrovetide football* and *folk football*.
  - Alnwick in Northumberland
  - Ashbourne in Derbyshire (known as Royal Shrovetide Football)
  - Atherstone in Warwickshire
  - Corfe Castle in Dorset – The Shrove Tuesday Football Ceremony of the Purbeck Marblers.
  - Haxey in Lincolnshire (the Haxey Hood, actually played on Epiphany)
  - Hurling the Silver Ball takes place at St Columb Major in Cornwall
  - Sedgefield in County Durham
  - In Scotland the Ba game ("Ball Game") is still popular around Christmas and Hogmanay at:
    - Duns, Berwickshire
    - Scone, Perthshire
    - Kirkwall in the Orkney Islands
- Outside the UK other Mediaeval games include:
  - Calcio Fiorentino – a modern revival of Renaissance football from 16th century Florence.

### **Other surviving public school games**

- Eton Field Game
- Eton Wall Game
- Harrow Football
- Winchester Football

### **More recent inventions and derivations**

- Based on Mediaeval football:
  - Murder Ball
- Based on FA rules:
  - Cubbies
  - Three sided football
  - Triskelion
    - Keepie uppie is the art of juggling with a football using feet, knees, chest, shoulders, and head.
      - Footbag is a small bean bag or sand bag used as a ball in a number of keepie uppie variations such as hacky sack.
    - Freestyle Football a modern take on Keepie uppie where freestylers are graded for their entertainment value and expression of skill.
- Based on Rugby:

- Scuffleball
- Force em' Backs
- Hybrid games
  - Speedball (American) – a combination of American football, soccer, and basketball, devised by Elmer D. Mitchell at the University of Michigan in 1912.
  - Wheelchair Rugby – previously known as *Murderball*. Invented in Canada in 1977 and initially derived from ice hockey and basketball rather than rugby football.
    - Wheelchair power tag rugby
    - Wheelchair rugby league

## Tabletop games and other recreations

- Based on FA rules:
  - Category: Football (soccer) computer and video games
  - Subbuteo
  - Blow football
  - Foosball (also known as table football/soccer, babyfoot, bar football or gettone)
  - Fantasy football (soccer)
  - Button football (also known as Futebol de Mesa; Jogo de Botões)
- Based on Rugby:
  - Paper football
- Based on American Football:
  - Blood Bowl
  - Fantasy football (American)
  - Madden NFL
- Based on Australian Football:
  - List of Australian rules football computer games
    - AFL Premiership 2005
  - AFL Dream Team

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# Soccer

*Association football, soccer, or simply football*, is a team sport played between two teams each consisting of 11 players and is the most popular sport in the world. It is a ball game played on a rectangular grass field (or occasionally on an artificial pitch) with a goal at each end. The object of the game is to score by manoeuvring the ball into the opposing goal. The predominant feature of the sport is that players other than the goalkeepers may not use their hands or arms to propel the ball in general play. The winner is the team that has scored more goals at the end of the match.

The modern game developed in England following the formation of the Football Association, whose 1863 set of rules created the foundations for the way the sport is played today. Football is governed internationally by Fédération Internationale de Football Association (FIFA). The most prestigious international football competition is the World Cup, which is also the most widely-viewed sporting event in the world.[1]

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## Nature of the game

Football is played in accordance with a set of rules, known as the Laws of the Game. The game is played using a single round ball (the football), and two teams of eleven players each compete to get the ball into the other team's goal, thereby scoring a goal. The team that has scored more goals at the conclusion of the game is the winner; if both teams have scored an equal number of goals then the game is a draw.

The primary rule is that the players (other than the goalkeepers) may not intentionally touch the ball with their hands or arms during play (though they do use their hands during

a throw-in restart). Although players mainly use their feet to move the ball around, they may use any part of their bodies other than their hands or arms.

In typical game play, players attempt to propel the ball towards their opponents' goal through individual control of the ball, such as by dribbling (running with the ball close to their feet), passing the ball to a team-mate, and by taking shots at the goal, which is guarded by the opposing goalkeeper. Opposing players may try to regain control of the ball by intercepting a pass or through tackling the opponent who controls the ball; however, physical contact between opponents is restricted. Football is generally a free-flowing game, with the ball in play at all times except when it has left the field of play, or when play has been stopped by the referee. After a stoppage, play recommences with a specified restart.

At a professional level, most matches produce only a few goals. For example, during the English 2005-06 season of the FA Premier League, an average of 2.48 goals per match were scored.[2]

The Laws of the Game do not specify any player positions other than goalkeeper, but a number of player specialisations have evolved. Broadly, these include three main categories: strikers, or forwards, whose main task is to score goals; defenders, who specialise in preventing their opponents from scoring; and midfielders, who dispossess the opposition and keep possession of the ball in order to pass it to the forwards. These positions are further differentiated by which side of the field the player spends most time in. For example, there are central defenders, and left and right midfielders. While players may spend most of the game in a specific position, there are few restrictions on player movement, and players can switch positions at any time. The layout of the players on the pitch is called the team's formation, and defining the team's formation and tactics is usually the prerogative of the team's manager.

## History and development

*See also: Football*

Games revolving around the kicking of a ball have been played in many countries through history. The earliest documented version is the Chinese game Cuju, mentioned in military manuals from the time of the Qin Dynasty (255–206 BCE).[3] Other ancient ball games include kemari in Japan and the Roman game Harpastum. Various forms of mob football were played in mediæval Europe, though rules varied greatly by both period and location.

The rules of football as they are codified today are based on mid-19th century efforts to standardise the widely varying forms of football played at the public schools of England. The first set of rules resembling the modern game were produced at Trinity College, Cambridge in 1848, at a meeting attended by representatives from Eton, Harrow, Rugby, Winchester and Shrewsbury schools, but they were not universally adopted. During the 1850s, many clubs unconnected to schools or universities were formed throughout the English-speaking world to play various forms of football. Some came up with their own distinct codes of rules, most notably the Sheffield Football Club (formed by former pupils from Harrow) in 1857, which led to formation of a Sheffield FA in 1867. In 1862, John Charles Thring of Uppingham School also devised an influential set of rules.[4]



These efforts contributed to the formation of The Football Association (The FA) in 1863 which first met on the morning of 26 October 1863 at the Freemason's Tavern in Great Queen Street, London[5]. The only school to be represented on this occasion was Charterhouse. The Freemason's Tavern was the setting for five more meetings between October and December, which eventually produced the first comprehensive set of rules. At the final meeting, the first FA treasurer, the representative from Blackheath, withdrew his club from the FA over the removal of two draft rules at the previous meeting, the first which allowed for the running with the ball in hand and the second, obstructing such a run by hacking (kicking an opponent in the shins), tripping and holding. Other English rugby clubs followed this lead and did not join the FA but instead in 1871 formed the Rugby Football Union. The eleven remaining clubs, under the charge of Ebenezer Cobb Morley, went on to ratify the original fourteen rules of the game. Despite this, the Sheffield FA played by its own rules until the 1870s.

Today the laws of the game are determined by the International Football Association Board (IFAB). The Board was formed in 1886[6] after a meeting in Manchester of The Football Association, the Scottish Football Association, the Football Association of Wales, and the Irish Football Association. The world's oldest football competition is the FA Cup, which has been contested by English teams since 1872. England is also home to the world's first football league, which was founded in 1888 by Aston Villa director William McGregor[7]. The original format contained 12 clubs from the Midlands and the North of England. The Fédération Internationale de Football Association (FIFA), the international football body, was formed in Paris in 1904 and declared that they would adhere to Laws of the Game of the Football Association. [8] The growing popularity of the international game led to the admittance of FIFA representatives to the IFAB in 1913. The board currently consists of four representatives from FIFA and one representative from each of the four British associations.

Today, football is played at a professional level all over the world, and millions of people regularly go to football stadia to follow their favourite team,[9] whilst billions more watch the game avidly on television.[10] A very large number of people also play football at an amateur level. According to a survey conducted by FIFA and published in the spring of 2001, over 240 million people regularly play football in more than 200 countries in every part of the world.[11] Its simple rules and minimal equipment requirements have no doubt aided its spread and growth in popularity.

In many parts of the world football evokes great passions and plays an important role in the life of individual fans, local communities, and even nations; it is therefore often claimed to be the most popular sport in the world. ESPN has spread the claim that the Côte d'Ivoire national football team helped secure a truce to the nation's civil war in 2005. By contrast, however, football is widely considered to be the final proximate cause in the Football War in June 1969 between El Salvador and Honduras. The sport also exacerbated tensions at the beginning the Yugoslav wars of the 1990s, when a Red Star Belgrade-at-Dinamo Zagreb match devolved into rioting in March 1990.[12]

## **Laws of the Game**

## **Overview of the Laws**

There are seventeen Laws in the official Laws of the Game. The same Laws are designed to apply to all levels of football, although certain modifications for groups such as juniors, seniors or women are permitted. The Laws are often framed in broad terms, which allow flexibility in their application depending on the nature of the game. In addition to the seventeen Laws, numerous IFAB decisions and other directives contribute to the regulation of football. The Laws can be found on the official FIFA website.[13]

## **Players, equipment and officials**

Each team consists of a maximum of eleven players (excluding substitutes), one of whom must be the goalkeeper. Competition rules may state a minimum number of players required to constitute a team; this is usually seven. Goalkeepers are the only players allowed to play the ball with their hands or arms, but they are only allowed to do so within the penalty area in front of their own goal. Though there are a variety of positions in which the outfield (non-goalkeeper) players are strategically placed by a manager or coach, these positions are not defined or required by the Laws.

The basic equipment players are required to wear includes a shirt, shorts, socks, footwear and adequate shin guards. Players are forbidden to wear or use anything that is dangerous to themselves or another player (including jewellery or watches). The goalkeeper must wear clothing that is easily distinguishable from that worn by the other players and the match officials.

A number of players may be replaced by substitutes during the course of the game. The maximum number of substitutions permitted in most competitive international and domestic league games is three, though the number permitted may be varied in other leagues or in friendly matches. Common reasons for a substitution include injury, tiredness, ineffectiveness, a tactical switch, or as a defensive ploy to use up a little time at the end of a finely poised game. In standard adult matches, a player who has been substituted may not take further part in the match.

A game is officiated by a referee, who has "full authority to enforce the Laws of the Game in connection with the match to which he has been appointed" (Law 5), and whose decisions are final. The referee is assisted by two assistant referees. In many high-level games there is also a fourth official, who assists the referee and may replace another official should the need arise.

## **Playing field**

Due to the original formulation of the Laws in England and the early supremacy of the four British football associations within IFAB, the standard dimensions of a football pitch were originally expressed in imperial units. The Laws now express dimensions with

approximate metric equivalents (followed by traditional units in brackets), though popular use tends to continue to use traditional units.

The length of the rectangular field (pitch) specified for international adult matches is in the range 100-110m (110-120 yards) and the width is in the range 65-75m (70-80 yards). Fields for non-international matches may be 100-130 yards length and 50-100 yards in width. The longer boundary lines are touchlines or sidelines, while the shorter boundaries (on which the goals are placed) are goal lines. On the goal line at each end of the field a rectangular goal is centered. The inner edges of the vertical goal posts must be 8 yards (7.32m) apart, and the lower edge of the horizontal crossbar supported by the goal posts must be 8 feet (2.44m) above the ground. Nets are usually placed behind the goal, but are not required by the Laws.

In front of each goal is an area of the field known as the penalty area (colloquially "penalty box", "18 yard box" or simply "the box"). This area is marked by the goal-line, two lines starting on the goal-line 18 yards (16.5m) from the goalposts and extending 18 yards into the pitch perpendicular to the goal-line, and a line joining them. This area has a number of functions, the most prominent being to mark where the goalkeeper may handle the ball and where a penal foul by a defender becomes punishable by a penalty kick.

The field has other field markings and defined areas; these are described in the main article above.

## **Duration and tie-breaking methods**

A standard adult football match consists of two periods of 45 minutes each, known as halves. There is usually a 15-minute break between the halves, known as half time. The end of the match is known as full-time.

The referee is the official timekeeper for the match, and may make an allowance for time lost through substitutions, injured players requiring attention, or other stoppages. This added time is commonly referred to as stoppage time or injury time. The amount of time is at the sole discretion of the referee, and the referee alone signals when the match has been completed. In matches where a fourth official is appointed, towards the end of the half the referee will signal how many minutes remain to be played, and the fourth official then signals this to players and spectators by holding up a board showing this number.

In league competitions games may end in a draw, but in some knockout competitions if a game is tied at the end of regulation time it may go into extra time, which consists of two further 15-minute periods. If the score is still tied after extra time, some competitions allow the use of penalty shootouts (known officially in the Laws of the Game as "kicks from the penalty mark") to determine which team will progress to the next stage of the tournament. Goals scored during extra time periods count towards the final score of the game, but kicks from the penalty mark are only used to decide the team that progresses to the next part of the tournament (with goals scored in a penalty shootout not making up part of the final score).

Competitions held over two legs (in which each team plays at home once) may use the away goals rule to attempt to determine which team progresses in the event of an equal

aggregate scoreline. If the result is still equal following this calculation kicks from the penalty mark are usually required, though some competitions may require a tied game to be replayed.

In the late 1990s, the IFAB experimented with ways of making matches more likely to end without requiring a penalty shootout, which was often seen as an undesirable way to end a match. These involved rules ending a game in extra time early, either when the first goal in extra time was scored (golden goal), or if one team held a lead at the end of the first period of extra time (silver goal). Golden goal was used at the World Cup in 1998 (France) and 2002 (Japan-South Korea). The first World Cup game decided by a golden goal was France's victory over Paraguay in 1998. In the 1996 European Championships Germany was the first nation to score a golden goal in a major competition, beating Czech Republic in the final. Silver goal was used in Euro 2004 (Portugal). Both these experiments have been discontinued by IFAB.

## **Ball in and out of play**

Under the Laws, the two basic states of play during a game are ball in play and ball out of play. From the beginning of each playing period with a kick-off (a set kick from the centre-spot by one team) until the end of the playing period, the ball is in play at all times, except when either the ball leaves the field of play, or play is stopped by the referee. When the ball becomes out of play, play is restarted by one of eight restart methods, the method used depending on the reason for the ball going out of play:

Kick-off: following a goal by the opposing team, or to begin each period of play.

Throw-in: when the ball has wholly crossed the touchline; awarded to opposing team to that which last touched the ball.

Goal kick: when the ball has wholly crossed the goal line without a goal having been scored and having last been touched by an attacker; awarded to defending team.

Corner kick: when the ball has wholly crossed the goal line without a goal having been scored and having last been touched by a defender; awarded to attacking team.

Indirect free kick: awarded to the opposing team following "non-penal" fouls, certain technical infringements, or when play is stopped to caution/send-off an opponent without a specific foul having occurred.

Direct free kick: awarded to fouled team following certain listed "penal" fouls.

Penalty kick: awarded to the fouled team following a "penal" foul occurring in their opponent's penalty area.

Dropped-ball: occurs when the referee has stopped play for any other reason (e.g. a serious injury to a player, interference by an external party, or a ball becoming defective). This restart is uncommon in adult games.

## **Fouls and misconduct**

A foul occurs when a player commits a specific offence listed in the Laws of the Game when the ball is in play. The offences that constitute a foul are listed in Law 12. Handling the ball, tripping an opponent, or pushing an opponent, are examples of "penal fouls", punishable by a direct free kick or penalty kick depending on where the offence occurred. Other fouls are punishable by an indirect free kick.

The referee may punish a player or substitute's misconduct by a caution (yellow card) or sending-off (red card). Misconduct may occur at any time, and while the offences that constitute misconduct are listed, the definitions are broad. In particular, the offence of "unsporting behaviour" may be used to deal with most events that violate the spirit of the game, even if they are not listed as specific offences.

Rather than stopping play, the referee may allow play to continue when its continuation will benefit the team against which an offence has been committed. This is known as "playing an advantage". The referee may "call back" play and penalise the original offence if the anticipated advantage does not ensue within a short period of time, typically taken to be four to five seconds. Even if an offence is not penalised because the referee plays an advantage, the offender may still be sanctioned for any associated misconduct at the next stoppage of play.

## **Offside**

The most complex of the Laws is the offside Law, which limits the ability of attacking players to remain forward (i.e. closer to the opponent's goal-line) of both the ball and the second-last defending player. It is often assumed that the purpose of this Law is to prevent "goal scrounging" or "cherry picking", but in fact the offside law has similar roots to the offside Law in rugby.[14] The details and application of this Law are complex, and often result in controversy.

## **Governing bodies**

The recognised international governing body of football (and associated games, such as futsal and beach soccer) is the Fédération Internationale de Football Association (FIFA). The FIFA headquarters are located in Zurich, Switzerland.

Six regional confederations are associated with FIFA; these are:

Asia: Asian Football Confederation (AFC)

Africa: Confederation of African Football (CAF)

Central/North America & Caribbean: Confederation of North, Central American and Caribbean Association Football (CONCACAF; also known as The Football Confederation)

Europe: Union of European Football Associations (UEFA)

Oceania: Oceania Football Confederation (OFC)

South America: Confederación Sudamericana de Fútbol (South American Football Confederation; CONMEBOL)

The recognised various national associations oversee football within their jurisdictions. These are affiliated both with FIFA directly and also with their respective continental confederations.

The Laws of the Game are not maintained by FIFA itself; rather they are maintained by the International Football Association Board, as discussed in the history and development section above.

## **Major international competitions**

The major international competition in football is the World Cup, organised by FIFA. This competition takes place over a four-year period. More than 190 national teams compete in qualifying tournaments within the scope of continental confederations for a place in the finals. The finals tournament, which is held every four years, now involves 32 national teams (increased in 1998 from the 24 of 1994) competing over a four-week period. The 2006 FIFA World Cup is currently taking place in Germany[15] ; in 2010 it will be held in South Africa.

There has been a football tournament at the Summer Olympic Games since 1900, except at the 1932 games in Los Angeles. Prior to the inception of the World Cup, the Olympics (especially during the 1920s) had the same status as the World Cup. Originally, the event was for amateurs only,[16] however, since the 1984 Summer Olympics professionals have been permitted as well, albeit with certain restrictions which effectively prevent countries from fielding their strongest sides. Currently, the Olympic men's tournament is played at Under-23 level. In the past the Olympics have allowed a restricted number of over-age players per team;[17] but that practice will cease in the 2008 Olympics. The Olympic competition is not generally considered to carry the same international significance and prestige as the World Cup. A women's tournament was added in 1996; in contrast to the men's event, the women's Olympic tournament is played by full international sides without age restrictions. It thus carries international prestige considered comparable to that of the FIFA Women's World Cup.

After the World Cup, the most important football competitions are the continental championships, which are organised by each continental confederation and contested between national teams. These are the European Championship (UEFA), the Copa América (CONMEBOL), African Cup of Nations (CAF), the Asian Cup (AFC), the CONCACAF Gold Cup (CONCACAF) and the OFC Nations Cup (OFC). The most prestigious competitions in club football are the respective continental championships, which are generally contested between national champions, for example the UEFA Champions League in Europe and the Copa Libertadores in South America.

## **Domestic competitions**

The governing bodies in each country operate leagues, themselves normally comprised of several divisions, in which the teams gain points throughout the season depending on results. Teams are placed into tables, placing them in order according to points accrued. Most commonly, each team plays every other team in its league at home and away in each season. At the end of a season, the top team are declared to be the champions, and the top few teams may be promoted to a higher division; and one or more of the teams finishing at the bottom are relegated to a lower division. The teams finishing at the top of a country's league may be eligible also to play in international club competitions in the following season. The main exceptions to this system occur in some South American leagues, which divide football championships into two sections named Apertura and Clausura, awarding a champion for each.

In addition to a league system, most countries operate one or more cup competitions during the season. These are organised on a knock-out basis, the winner of each match proceeding to the next round; the loser takes no further part in the competition. For a full list of the most important football competitions in each country.

## **Names of the game**

The rules of football were codified in England by the Football Association in 1863, and the name association football was coined to distinguish the game from the other forms of football played at the time, specifically rugby football. The term soccer first appeared in the 1880s as a slang abbreviation of Association football, often credited to Charles Wreford-Brown. [18]

Today the sport is known by a number of names throughout the English-speaking world, the most common being football and soccer. The term used depends largely on the need to differentiate the sport from other codes of football followed in a community. Football is the term used by FIFA, the sport's world governing body, and the International Olympic Committee. For more details of naming throughout the world, please refer to the main articles above.

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## American football

*American football*, known in the United States and Canada [1] simply as *football*, is a competitive team sport. The object of the game is to advance the football towards the opposing team's end zone and score points. The ball can be advanced by carrying the ball, or by throwing or handing it from one teammate to the other. Points can be scored in a variety of ways, including carrying the ball over the goal line, throwing the ball to another player past the goal line or kicking it through the goal posts on the opposing side. The winner is the team with the most points when the time expires and the last play ends.



Outside of the United States and Canada, the sport is usually referred to as American football (or sometimes as gridiron or gridiron football) to differentiate it from other football games, especially association football (soccer) and rugby football. In Japan, it is referred to as "amefuto" (an abbreviation). American football evolved as a separate sport from rugby football in the late 19th century. Arena football is an invented variant of American football. Canadian football, which also descended from rugby, is closely related to the American sport with a few key differences; the word "football" in Canada can mean American football or Canadian football depending on context. Many in both Canada and the northern United States consider American and Canadian football to be two codes of the same game.

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## **Popularity**

Since the 1960s, football has outranked baseball as the most popular spectator sport in the United States [2]. The 32-team National Football League (NFL) is the most popular and only major professional American football league. Its championship game, the Super Bowl, is watched by nearly half of U.S. television households, and is also televised in over 150 other countries. Super Bowl Sunday has become an annual ritual in late January or early February. Football is also the most watched sport on television in the United States.

The NFL also operates a developmental league, NFL Europe, with teams in five German cities, and one in the Netherlands.

College football is also extremely popular throughout North America. Several college football stadiums seat more than 100,000 fans — which regularly sell out. Even high school football games can attract five-figure crowds, especially in football hotbeds like Alabama, Western Pennsylvania, Nebraska, Ohio, Georgia and Texas. The weekly autumn ritual of college and high-school football — which includes marching bands, cheerleaders and parties (including the ubiquitous tailgate party) — is an important part of the culture in much of smalltown America. It is a long-standing tradition in the United States (though not universally observed) that high school football games are played on Friday, college games on Saturday, and professional games on Sunday (with an additional professional game on Monday nights).

Certain fall and winter holidays — most notably Thanksgiving, Christmas, and New Years' Day — have traditional football games associated with them.

Football is also played recreationally by amateur club and youth teams (e.g., the Pop Warner little-league programs). There are also many "semi-pro" teams in leagues where the players are paid to play, but at a small enough salary that they generally must also hold a full-time job.

Pro football is played in the United States and in the above-mentioned NFL Europe league. The professional Canadian Football League plays under Canadian rules. The sport is popular as an amateur activity in Mexico and American Samoa and to a lesser extent in Japan, Europe and Australia.

Organized football is played almost exclusively by men and boys, although a few amateur and semi-professional women's leagues have begun play in recent years.

## **The rules of American football**

The object of American football is to score more points than the opposing team within a set time limit.

### **Field and players**

American football is played on a rectangular field 120 yards (110 metres) long by 53 1/3 yards (49 metres) wide. The longer boundary lines are sidelines, while the shorter boundary

lines are end lines. Near each end of the field is a goal line; they are 100 yards apart. A scoring area called an end zone extends 10 yards beyond each goal line to each end line.

Yard lines cross the field every 5 yards, and are numbered from each goal line to the 50-yard line, or midfield (similar to a typical rugby league field). Two rows of lines, known as hash marks, parallel the side lines near the middle of the field. All plays start with the ball on or between the hash marks.

At the back of each end zone are two goal posts (also called uprights) that are 18.5 feet apart (24 feet in high school). The posts are connected by a crossbar 10 feet from the ground. Successful kicks must go above the crossbar and between the uprights. (At professional, college, and some high school fields, the uprights and crossbar are attached by a curved bar to a padded post outside the field of play, to reduce the chance of players running into the supports. Many high schools, though, use an H-shaped structure located behind the endlines, allowing the structure to be used as a soccer goal as well.)

Each team has 11 players on the field at a time. However, teams may substitute for any or all of their players, if time allows, during the break between plays. As a result, players have very specialized roles, and almost all of the 53 players on an NFL team will play in any given game. Thus, teams are divided into three separate units: the offense, the defense and the special teams (see below). In the NFL, players' jersey numbers are distributed according to a strict system (e.g. quarterbacks always wear between 1-19).

## **Game duration**

A standard football game consists of four 15-minute (typically 12 minutes in high school football) periods (called quarters), with an intermission (called halftime) after the second quarter. The clock stops after certain plays; therefore, a game can last considerably longer (often more than three hours in real time). If an NFL game is tied after four quarters, the teams play an additional period lasting up to 15 minutes. In an NFL overtime game, the first team that scores, wins, ending the game. In a regular-season game, if neither team scores, the game is a tie. In a post-season game, play continues with additional overtime periods until the tie is broken, as in the 1971 Christmas Day double-overtime game between the Miami Dolphins and Kansas City Chiefs, the longest game in NFL history. College overtime rules are more complicated and are described at Overtime (sport).

## **Advancing the ball**

Advancing the ball in American football resembles the six-tackle rule and the play-the-ball in rugby league football. The team that takes possession of the ball (the *offense*) has four attempts, called *downs*, to advance the ball 10 yards towards their opponent's (the *defense's*) end zone. When the offense gains 10 yards, it gets a *first down*, or another set of four downs to gain 10 yards. If the offense fails to gain a first down (10 yards) after 4 downs, it loses possession of the ball.

Except at the beginning of halves and after scores (see Kickoffs and free kicks below), the ball is always put into play by a *snap*. All players line up facing each other at the line of scrimmage (the position on the field where the play begins). One offensive player, the center, then passes (or "snaps") the ball between his legs to a teammate, usually the quarterback.

Players can then advance the ball in two ways:

- By running with the ball, also known as *rushing*. One ball-carrier can hand the ball to another; this is known as a *handoff*.
- By throwing the ball to a teammate, known as a forward pass or as *passing* the football. The forward pass is a key factor distinguishing American and Canadian football from other football sports. The offense can throw the ball forward only once on a play and only from behind the line of scrimmage. The ball can be thrown sideways or backwards at any time. This type of pass is known as a *lateral* and is much rarer in American football than in rugby league or rugby union, where a backwards pass is mandatory.

A play (also called a down) ends, and the ball becomes dead, after any of the following:

- The player with the ball is forced to the ground or has his forward progress halted by members of the other team (as determined by an official).
- A forward pass flies out of bounds or touches the ground before it is caught. This is known as an *incomplete pass*. The ball is returned to the original line of scrimmage for the next down.
- The ball or the player with the ball goes beyond the dimensions of the field (*out of bounds*).
- A team scores.

Officials blow a whistle to notify all players that the play is over.

At all times, players and fans must be aware of the sequence of downs and the distance to a new first down. When a team has a first down, the scoreboard or television screen flashes "1st and 10" — that is, first down and 10 yards to go. If the team gains three yards on the first play, for example, the next down will be "2nd and 7." If the team gains 6.5 yards on the next play the scoreboard may say "3rd and inches." If a team gains a first down within the ten yard line then the scoreboard or television reads "(the down) and goal."

## Changes of possession

The offense maintains possession of the ball unless one of the following things happens:

- The team fails to get a first down, that is, move the ball forward at least 10 yards in four downs. The defensive team takes over the ball at the spot where the play ends. A change of possession in this manner is commonly called a *turnover on downs*.
- The offense scores a touchdown or field goal. The team that scored then kicks off the ball to the other team. (See Scoring and Kickoffs below.)
- The offense punts the ball to the defense. A *punt* is a kick in which a player drops the ball and kicks it before it hits the ground. Punts are nearly always made on fourth down, when the offensive team does not want to risk

giving up the ball to the other team at its current spot on the field (through a failed attempt to make a first down) and feels it is too far from the other team's goal posts to attempt a field goal.

- A defensive player catches a forward pass to his receiver. This is called an *interception*, and the player who makes the interception can run with the ball until tackled, forced out of bounds, or scores. After the intercepting player is tackled or forced out of bounds, his team's offensive unit returns to the field and takes over at his last position.

- An offensive player drops the ball (a *fumble*) and a defensive player picks it up. As with interceptions, a player recovering a fumble can run with the ball until tackled or forced out of bounds. Lost fumbles and interceptions are together known as *turnovers*.

- The offensive team misses a field goal attempt. The defensive team gets the ball at the spot where the previous play began (or, in the NFL, at the spot of the kick). If the unsuccessful kick was attempted from within 20 yards of the end zone, the other team gets the ball at its own 20-yard line (that is, 20 yards from the end zone).

- An offensive ballcarrier is tackled, forced out of bounds, loses the ball out of bounds, or commits certain penalties in his own end zone. This rare occurrence is called a *safety*. (See Scoring below.)

## Scoring

A team scores points by the following plays:

- A *touchdown* (TD) is worth 6 points. A touchdown is scored when a player runs the ball into or catches a pass in his opponent's end zone.

- After a touchdown, the scoring team attempts a *conversion*. The ball is placed at the other team's 3-yard line (the 2-yard line in the NFL). The team can attempt to kick it over the crossbar and through the goal posts in the manner of a field goal for 1 point (an *extra point* or *point after touchdown* (*PAT*)), or run or pass it into the end zone in the manner of a touchdown for 2 points (a *two-point conversion*). In collegiate and professional leagues, the extra point is usually preferred; its success rate is 94% in the NFL and 93.8% in the NCAA, compared to 43% in the NFL and 43.5% in the NCAA for two-point conversions. If the defense forces a turnover on an attempted conversion and runs the ball back to their opponent's endzone, they are awarded with 2 points (does not apply in the NFL).

- A *field goal* (FG) is worth 3 points, and it is scored by kicking the ball over the crossbar and through the goal posts. Field goals may be placekicked (kicked when the ball is held vertically against the ground by a teammate) or drop-kicked. A field goal is usually attempted on fourth down instead of a punt when the ball is close to the goal line, or, when there is little or no time left to otherwise score.

- A *safety* is worth 2 points. A safety is scored by the defense when the offensive player in possession of the ball is forced back into his own end zone and is tackled there, or fumbles the ball out of the end zone, or commits intentional grounding in the endzone. Certain penalties by the offense occurring in the end zone also result in a safety - these result in two points. This is the only time that a team gains possession of the football immediately after scoring.

## **Kickoffs and free kicks**

Each half begins with a kickoff. Teams also kick off after scoring touchdowns and field goals. The ball is kicked from a kicking tee, which is made from one's own 30-yard line in the NFL and from the 35-yard line in college football. The other team's kick returner tries to catch the ball and advance it as far as possible. Where he is stopped is the point where the offense will begin its *drive*, or series of offensive plays. If a kick returner does not want to run with the ball, he has the option to signal for a "fair catch" by waving his hands in the air before the catch. He will then be allowed to catch the ball without being tackled. If the kick returner catches the ball in his own end zone, he can either run with the ball, or elect for a *touchback* by kneeling in the end zone. The receiving team can start its offensive drive from its own 20-yard line. A touchback also occurs when the kick goes out of the end zone. Punts and turnovers in the end zone can also end in touchbacks.

After safeties, the team that gave up the 2 points puts the ball into play with a punt or placekick from its own 20-yard line.

## **Penalties**

Rule violations are punished with *penalties*. Most penalties result in moving the football either towards the endzone in the case of a defensive penalty, or away from the endzone in the case of an offensive penalty. Some defensive penalties give the offense an automatic first down. In addition, if a penalty gives the offensive team enough yardage to gain a first down, the first down is automatically given. If a penalty occurs during a play, an official throws a yellow flag near the spot of the foul. When the play is over, the team that did not commit the penalty has the option of taking either the penalty or the result of the play. For example, say a defensive player commits an offside penalty on first down by passing the line of scrimmage before the snap, and the offense gains eight yards on the play. The team with the ball has the option of taking the penalty and repeat the first down with five yards to go, or declining the penalty and scrimmaging with 2nd and 2.

## Some common penalties

- *False start*: A player on the offense, other than a back moving parallel to the line of scrimmage, moves just prior to the snap. Five yards. Replay of down.
- *Offsides*: A player is on the wrong side of the ball at the start of a play. Five yards. Replay of down. Similar fouls: Touching an opponent before the snap is *encroachment*; lining up alongside the football instead of behind it is a *neutral zone infraction*.
- *Holding*: A blocker unfairly impedes a would-be tackler or pass receiver, by grabbing the player's jersey, hooking, or tackling. When committed by the offense, or by either team on a change of possession, the penalty is ten yards. When committed by the defense, the penalty is five yards and an automatic first down is awarded to the offense. If the penalty occurred beyond the line of scrimmage, the penalty would be enforced from the spot of the foul.
- *Illegal block in the back*: A blocker hits a would-be tackler or pass receiver from behind, but above the waist (for the same block below the waist, see "clipping"). Ten yards from the spot of the foul.
- *Pass interference*: After a pass is launched into the air, a defender pushes, hooks, grabs, or knocks down a would-be pass receiver, or if the receiver does the same to the defender to prevent an interception. First down at the spot of the foul if against the defense (15 yards from the previous spot in college football), or ten yards from the previous spot if against the offense. Similar penalties before a pass are called as *holding* or *illegal contact*.
- *Facemask*: a player places his hand on an opponent's facemask during a play. Five yards if the contact was accidental, or fifteen (a *personal foul*) if the player hooks his fingers into the facemask or uses the facemask to pull the player to the ground. Also called "minor facemask" and "major facemask."
- *Roughing the passer/kicker*: A player places a hard hit on a passer long enough after a pass has been thrown to consider the contact avoidable, or places a hard hit on a punter or place kicker. Fifteen yards and automatic first down.
- *Running into the kicker*: Any contact on a kicker after a kick has been made. Five yards.
- *Intentional grounding*: The passer throws a forward pass not near any eligible receiver, without first leaving the area behind where the blocking linemen were standing before the snap (the "pocket"), or the passer throws a forward pass outside of the pocket which does not reach the original *line of scrimmage* and is not near any eligible receiver. Ten yards plus loss of down, except if the penalty occurred in the end zone, then it is ruled a safety, and the defense is awarded 2 points. In college football and high school football, the defense is also credited with a quarterback sack. Note that spiking the ball to stop the clock is exempt from this.
- *Ineligible receiver downfield*: On every play the offense must have 7 players on the line of scrimmage, the player furthest from the ball on each side are eligible receivers; the interior five players are considered ineligible to receive

passes. This penalty is called if one of the 5 interior players is more than five yards past the line of scrimmage during a forward pass.

- *Dead ball personal foul*: After the play is blown dead, a player tackles or makes rough contact with a player on the other team. Fifteen yards, automatic first down if on defense. May result in an ejection if severe enough.

- *Unnecessary roughness*: A catch-all for rough play that doesn't merit its own foul. An example is an avoidable late hit on a ball carrier who has run out of bounds. Fifteen yards.

- *Unsportsmanlike conduct*: Another catch-all call, commonly used for taunting, excessive celebration after a touchdown, and certain banned forms of pantomime (like slashing the throat). Fifteen yards.

- *Clipping* is a block that occurs from behind - below the waist. Due to the high possibility of injury it is a major penalty. 15 yards. Automatic first down. Possible ejection. At one time, all blocks from behind were considered "clipping," but due to the somewhat lesser risk of injury with blocks above the waist, the "illegal block" penalty was created.

- *Spearing* is contacting another player with one's head. Also called "helmet to helmet contact." Major penalty. 15 yards. Automatic first down. Possible ejection.

- *Delay of game* is failure to start the play before the play clock reaches zero. Five yard penalty. Replay of down.

- *Illegal procedure* Used to indicate a number of infractions, including an illegal snap, having less than seven players on the offense's line of scrimmage, and taking more than two steps after making a fair catch. Five yard penalty. Replay of down.

## The players

As noted above, most football players have highly specialized roles. At the college and NFL levels, most play only offense or only defense.

### Offense

- The *offensive line* consists of five players whose job is to protect the passer and clear the way for runners by blocking members of the defense. Except for the center, offensive linemen generally do not handle the ball.

- The *quarterback* receives the ball on most plays. He then hands or tosses it to a running back, throws it to a receiver or runs with it himself.

- *Running backs* line up behind or beside the QB and specialize in rushing with the ball. They also block, catch passes and, on rare occasions, pass the ball to others.



- *Wide receivers* line up near the sidelines. They specialize in catching passes.
- *Tight ends* line up outside the offensive line. They can either play like wide receivers (try to catch passes) or like offensive linemen (protect the QB or create spaces for runners).

Not all of these types of players will be in on every offensive play. Teams can vary the number of wide receivers, tight ends and running backs on the field at one time.

## Defense

- The *defensive line* consists of three to five players who line up across from the offensive line. They try to tackle the running backs before they can gain yardage or the quarterback before he can throw a pass.
- At least three players line up as *defensive backs*. They cover the receivers and try to stop pass completions. They occasionally rush the quarterback.
- The other players on the defense are known as *linebackers*. They line up between the defensive line and backs and may either rush the quarterback or cover potential receivers .

## Special teams

The units of players who handle kicking plays are known as *special teams*. Two important special-teams players are the *punter*, who handles punts, and the *placekicker* or *kicker*, who kicks off and attempts field goals and extra points. It is rare, but not unheard of, for these two positions to be filled by the same player. The reasoning behind this is because the kicking actions of the punter and placekicker are very different.

## Basic football strategy

To some fans, the chief draw of football is the chess game that goes on between the two coaching staffs. Each team has a *playbook* of dozens to hundreds of plays. The term, play, refers to the coordinated movements and actions that the players should follow on a down. Ideally, it is a scripted strategically sound team coordinated endeavour. Some plays are very safe; they are likely to get only a few yards. Other plays have the potential for long gains but at a greater risk of a loss of yardage or a turnover.

Generally speaking, rushing plays are less risky than passing plays. However, there are relatively safe passing plays and risky running plays. To deceive the other team, some passing plays are designed to resemble running plays and vice versa. There are many trick or gadget plays, such as when a team lines up as if it intends to punt and then tries to run or pass for a first down. Such high-risk plays are a great thrill to the fans when they work.

However, they can spell disaster if the opposing team realizes the deception and acts accordingly.

It has been suggested that football is the sport that most closely resembles real war strategically. It is by far the most popular sport in the American military. In fact, the United States Military Academy, the United States Naval Academy, and the United States Air Force Academy each field football teams that participate in Division I-A of the NCAA. Army and Navy have a particularly historic rivalry.

## **Physicality of the game**

American football is a collision sport. To stop the offense from advancing the ball, the defense must tackle the player with the ball by knocking him down. As such, defensive players must use some form of physical contact to bring the ball-carrier to the ground, within certain rules and guidelines. Tacklers cannot kick, punch or trip the runner. They also cannot grab the face mask of the runner's helmet, lead into a tackle with their own helmet, or lift the ball carrier up off his feet and drop him. Despite these and other rules regarding unnecessary roughness, most other forms of tackling are legal. Blockers and defenders trying to evade them also have wide leeway in trying to force their opponents out of the way. Quarterbacks are regularly hit by defenders coming on full speed from outside the quarterback's field of vision.

The high level of physical contact in football makes it more dangerous than other major American team sports. To compensate for this, players must wear a good deal of special protective equipment, such as a padded plastic helmet, shoulder pads, hip pads and knee pads. These protective "paddings" were introduced decades ago and improved ever since to help minimize lasting injury to players. However, increased padding has allowed players to make harder hits; though there are fewer minor injuries in American football than in other codes of football, serious injuries such as spinal cord injuries are much more common.

Despite protective equipment and rule changes to emphasize safety, injuries remain very common in football, due to its physical nature. Twenty-five football players, mostly high schoolers, died from injuries directly related to football from 2000-2004, according to the National Center for Catastrophic Sport Injury Research. Concussions are common, with about 41,000 suffered every year among high school players according to the Brain Injury Association of Arizona. It is common to see injuries in the game, and deaths are not unheard of. The game is particularly risky when played by amateurs without proper gear, such as is common amongst Americans in backyards and parks across the country.

Some have criticized American football as a violent sport. American football is indeed quite physical in comparison to other major American team sports, such as basketball and baseball. Tackle football is often banned in American schoolyards in favor of touch football, which uses two-hand touching instead of tackling; or flag football in which a player is "tackled" when an opponent pulls a flag off a belt attached to the player's waist. School physical education classes often use the "two-hand touch" version of the game, leaving the tackles to the school's official after-school sports program which can provide the appropriate gear and supervision.

The level of physical aggression and risk of injury has also made football less appealing to females, as they generally lack the muscle and body mass to compete without serious risk. The tackle nature of football also tends to favor the largest and strongest players, along with the fastest. The average weight of players in the NFL has increased in recent years.

All these factors have brought the sport into controversy in the past few decades, joining the group of other "violent" and thus controversial sports such as wrestling, hockey, and boxing. Critics argue that these sports emphasize size, physical strength, and brute force, and also that they breed aggression and unhealthy competitive attitudes in children. Others argue that such sports teach sportsmanship and teamwork, and though contact sports are all violent to some degree, they always emphasize skill and strategy over mere belligerence.

## **Development of the game**

Both American football and soccer have their origins in varieties of football played in the United Kingdom in the mid-19th century, and American football is directly descended from rugby football.

Rugby was first introduced to North America in Canada, brought by the British Army garrison in Montreal which played a series of games with McGill University. Both Canadian and American football evolved from this point. For an in-depth overview of the differences and similarities of Canadian football and American football see: [Comparison of Canadian and American football](#)

American colleges spearheaded the growth of football. The first inter-collegiate football game was played between Rutgers and Princeton Universities on November 6, 1869. The game was won by Rutgers (6-4) although "The game, which bore little resemblance to its modern-day counterpart, was played with two teams of 25 men each under rugby-like rules, but like modern football, it was 'replete with surprise, strategy, prodigies of determination, and physical prowess,' to use the words of one of the Rutgers players." - Rutgers Football

American football in its current form grew out of a series of three games between Harvard University and McGill University of Montreal in 1874. McGill played rugby football while Harvard played the Boston Game, which was closer to soccer. As often happened in those days of far from universal rules, the teams alternated rules so that both would have a fair chance. The Harvard players liked having the opportunity to run with the ball, and in 1875 persuaded Yale University to adopt rugby rules for their annual game. In 1876 Yale, Harvard, Princeton, and Columbia formed the Intercollegiate Football Association, which used the rugby code, except for a slight difference in scoring.

In 1880 Walter Camp introduced the scrimmage in place of the rugby scrum. In 1882 the system of downs was introduced to thwart Princeton's and Yale's strategy of controlling the ball without trying to score. In 1883 the number of players was reduced, at Camp's urging, to eleven, and Camp introduced the soon standard arrangement of a seven-man offensive line with a quarterback, two halfbacks, and a fullback.

On September 3, 1895 the first professional football game was played, in Latrobe, Pennsylvania, between the Latrobe YMCA and the Jeannette Athletic Club. (Latrobe won the contest 12-0.).

By the 1890s interlocking offensive formations such as the flying wedge and the practice of teammates physically dragging ball-carrying players forward had made the game extremely dangerous. Despite restrictions on the flying wedge and other precautions, in 1905 eighteen players were killed in games. President Theodore Roosevelt informed the universities that the game must be made safer. To force them to respond to his concerns, he threatened to pressure Congress to make playing football a federal crime.

In 1906, two rival organizing bodies, the Intercollegiate Rules Committee and the Intercollegiate Athletic Association, met in New York; eventually they agreed on several new rules intended to make the game safer, among them the addition of a neutral zone between the scrimmage lines and a requirement that at least six players from each team line up on them. The most far-reaching innovation they considered, though, was the legalization of the forward pass. This was very controversial at the time, much derided by purists. As an alternative means of opening out the play, Walter Camp would have preferred widening the field; but representatives from Harvard pointed to recently constructed Harvard Stadium, which could not be widened, and the forward pass was adopted; it has come to shape the whole history of American football, as opposed to its cousins around the world.

In 1910, after further deaths, interlocking formations were finally outlawed; and in 1912 the field was changed to its current size, the value of a touchdown increased to 6 points, and a fourth down added to each possession. The game had achieved its modern form.

## **Problems in football**

Injuries are more common in American football than in many other sports, although rule changes made in the past 90 years (for instance, the elimination of "horse-collar tackles") have gradually lowered the rates of injuries. In addition, protective equipment has become better - for example, the optional leather helmets introduced during the 1890s have been replaced (in several stages) by required high-tech padded plastic helmets with bars protecting the face. Modern field turf is seen as another danger-adding element in the game of football. Turf offers less "give" than grass, and can exert much greater forces on the players' bodies. While it guarantees a certain state of the play field, and enables players to run faster, it has also been shown to cause more injuries, most notably ankle injuries.

More recently, the use of steroids and the extent thereof has become an object of debate in professional, college, and even high school football leagues.

Another problem with football is that it is an expensive sport. The specialized helmets, uniforms, and pads can cost hundreds of dollars. There is a widespread perception that football teams based in schools and public recreational leagues consume far more than their fair share of the sports budget, although sales of tickets to college (and to some extent high school) football games often make it a revenue-producing sport.

## **Leagues, Organizations, and Associations**

## United States

Football is played at a number of levels in the United States. These include the following:

National Football League (NFL) - the top-level men's professional league  
College Football - played at many U.S. colleges and mostly governed by the NCAA. Other organizations include the NAIA and the NJCAA.

Arena Football (AFL) - professional indoor-football league.

American Football Association - semi-pro/minor league

North American Football League - Amateur minor league with more than 100 member organizations since 1996

Women's American football - since 2000, there has been a surge of women's professional leagues.

High School Football - played at most U.S. High Schools

Pop Warner or youth football - involves younger children who are too young to play high school, generally in middle school.

Sprint football - players must weigh no more than 172 pounds

Okinawan Football League - Various football teams made up of U.S. servicemembers

Great Plains Football League (GPFL)- semi-pro/minor league football league based in Rochester, MN with teams in MN, WI, IL, and IA.

## Internationally

American football is also played in many nations around the world. These include:

- International Federation of American Football International governing body for American football with 45 member associations from North and South America, Europe, Asia and Oceania. The IFAF also oversees the World Cup of American football which is held every four years. Japan has won the first two World Cups held in 1999 and 2003.
- Europe
  - NFL Europe - professional league in Europe, playing for the World Bowl (XIV in 2006)
  - European Federation of American Football European organization who runs the Eurobowl (XX in 2006)
  - German Football League
    - List of American football teams in Germany
  - Britain
    - British Collegiate American Football League (BCAFL) - Fast-growing college football league in the UK
    - British American Football League (BAFL) -Higher League of American Football in the UK
    - Irish American-football league
- American Football New Zealand - national body of American Football in New Zealand

- Gridiron Australia - national body of several state-level leagues
- Mexican College Football League or ONEFA - played by many Mexican colleges, with essentially NCAA rules

## **Alternate Rulesets**

Other kinds of American football with modified or derived rules:

- Canadian Football League (CFL) - Canadian men's professional league played using Canadian football rules.
- Arena Football League - mid-level men's professional league played indoors. There is also a "minor league" for Arena Football called AF2.
- National Indoor Football League - Similar to Arena Football, but generally featuring lower echelon players.
- Nine-man football, eight-man football and six-man football - variations of high school football, usually played in sparsely populated areas
- Amateur and youth league football
- Flag football and Touch football - non-tackle; almost exclusively amateur

## **Non-current Leagues**

Professional leagues that no longer exist:

All-America Football Conference (AAFC, 1946-1949) (2 teams are now in the NFL)  
 American Football Leagues (AFL), four separate ones: I:1926, II: 1937-38, III: 1940-1941 and IV: 1960-1969). The fourth AFL (1960-1969) merged with the NFL in 1970 and now exists (mostly) as the AFC with several new teams. The old NFL appeared as the NFC.  
 World Football League (WFL, 1974-75)  
 United States Football League (USFL, 1983-1985)  
 World League of American Football (WLAF, 1991-1993 — reformed as NFL Europe)  
 XFL (XFL, 2001)

## Footnotes

1. ^ The word "football" in Canada can mean American football or Canadian football depending on context. An Association for Canadian Studies survey finds that more Canadians watch the National Football League than the Canadian Football League, but both codes are popular in Canada.
2. ^ MacCambridge, Michael. *America's Game*, Random House, 2004.

## Golf

*Golf* (gowf in Scots) is a sport where individual players or teams hit a ball into a hole using various clubs, and is one of the few ball games that does not use a fixed standard playing area. It is defined in the Rules of Golf as "playing a ball with a club from the teeing ground into the hole by a stroke or successive strokes in accordance with the Rules."

Golf originated in Scotland and has been played for at least five centuries in the British Isles. The oldest course in the world is The Old Links at Musselburgh. Golf, in essentially the form we know it today, has been played on Scotland's Musselburgh Links since 1672, and earlier versions of the game had been played in the British Isles and the low-countries of Northern Europe for several centuries before that. Although often viewed as an elite pastime, golf is an increasingly popular sport that can be played for one's entire life.

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## **Anatomy of a golf course**

Golf is played on a tract of land designated as the course. The course consists of a series of holes. A hole means both the hole in the ground into which the ball is played (also called the cup), as well as the total distance from the tee (a pre-determined area from where a ball is first hit) to the green (the area surrounding the actual hole in the ground). Most golf courses consist of nine or eighteen holes. (The "nineteenth hole" is the colloquial term for the bar/grill at a club house).

The first stroke on each hole is done from the Tee (officially, teeing ground), where the grass is well tended to make the tee shot easier. After teeing off, a player strokes the ball again from the position at which it came to rest, either from the fairway (where the grass is cut so low that most balls can be easily played) or from the rough (grass cut much longer than fairway grass, or which may be uncut) until the ball comes to rest in the cup. Many holes include hazards, which may be of two types: water hazards (lakes, rivers, etc.) and bunkers. Special rules apply to playing balls that come to rest in a hazard, which make it undesirable to play a ball into one. For example, in a hazard, a player must not touch the ground with his club before playing a ball, not even for a practice swing. A ball in any type of hazard may be played as it lies without penalty. If it cannot be played from the hazard for any reason, it may be removed by hand and dropped outside the hazard within two club lengths and a penalty of one stroke. If a ball was observed entering a hazard but cannot be found, it may be replaced by dropping another ball outside the hazard, with one stroke penalty. Exactly where a ball may be dropped outside a hazard is governed by strict rules. Bunkers (or sand traps) are hazards from which the ball is more difficult to play than from grass. As in a water hazard, a ball in a sand trap must be played without previously touching the sand with the club.

The grass of the putting green (or more commonly the green) is cut very short so that a ball can roll easily over distances of several yards. To putt means to play a stroke, usually but not always on the green, wherein the ball does not leave the ground. The direction of growth of individual blades of grass often affects the roll of a golf ball and is called the grain. The slope of the green, called the break, can also affect the roll of the ball. The cup is always found within the green, and must have a diameter of 108 mm (4.25 in.) and a depth of at least 100 mm (3.94 in.). Its position on the green is not static and may be changed from day to day. The



cup usually has a flag on a pole positioned in it so that it may be seen from some distance, but not necessarily from the tee. This flag and pole combination is often called the pin.

Putting greens are not of all the same quality. Generally, the finest quality greens are well kept so that a ball will roll smoothly over the closely mowed grass. Golfers describe a green as being "fast" if a light stroke of the ball allows it to roll a long distance. Conversely, a green is termed "slow" if a stronger stroke is required to roll the ball the required distance.

The borders of a course are marked as such, and beyond them is out of bounds, that is, ground from which a ball must not be played. Some areas on the course may be designated as ground under repair, meaning that a ball coming to rest in them may be lifted and then played from outside such ground without penalty. Certain man-made objects on the course are defined as obstructions, and specific rules determine how a golfer may proceed when the play is impeded by these.

At most golf courses there are additional facilities that are not part of the course itself. Often there is a practice range, usually with practice greens, bunkers, and driving areas (where long shots can be practiced). There may even be a practice course (which is often easier to play or shorter than other golf courses). A golf school is often associated with a course or club.

## **Par**

A hole is classified by its par. Par is the number of strokes that a skilled golfer should require to complete the hole. For example, a skilled golfer expects to reach the green on a par four hole in two strokes, one from the tee (his "drive"), another to the green (his "approach"), and then roll the ball into the hole with two putts. Traditionally, a golf hole is either a par three, four, or five although, due to the distance obtained off the tee by many of today's professional golfers, a few par six holes now exist. The par of a hole is primarily, but not exclusively, determined by the distance from tee to green. A typical length for a par three hole is anywhere between 91 to 224 m (100 to 250 yds.), for a par four, between 225 to 434 m (251 to 475 yds.). Par five holes are typically at between 435 m (476 yds.) and 630 m (690 yds.), and par six holes are anything longer than that. It should be noted, however, that these distances are not absolute hard and fast rules; for example, it is possible that a hole of length 500 yards could be classed as a par four since the par for a hole is determined by its 'effective playing length.' So, if tee to green on a hole is predominantly downhill, it will play shorter than its physical length and may be given a lower par. Many 18-hole courses have approximately four par-three, ten par-four, and four par-five holes. The total par of a regulation course is 72. In many countries, courses are classified by a course rating in addition to the course's par. This rating describes the difficulty of a course and may be used to calculate a golfer's playing handicap for that individual course (see golf handicap).

## **Play of the game**

Every game of golf is based on playing a number of holes in a given order. A round typically consists of 18 holes that are played in the order determined by the course layout. On a nine-hole course, a standard round consists of two successive nine-hole rounds. A hole of golf consists of hitting a ball from a tee on the teeing ground (a marked area designated for the first shot of a hole), and, once the ball comes to rest, striking it again, and repeating this process until the ball at last comes to rest in the cup. Once the ball is on the green (an area of finely cut grass) the ball is usually putted (hit along the ground) into the hole. The aim of holing the ball in as few strokes as possible may be impeded by various hazards, such as bunkers and water hazards.

Players walk (or in some countries, often drive in motorized electric carts) over the course, either singly or in groups of two, three, or four, sometimes accompanied by caddies who carry and manage the players' equipment and give them advice. Each player plays a ball from the tee to the hole, except that in the mode of play called foursomes, two teams of two players compete, and the members of each team alternate shots using only one ball, until the ball is holed out. When all individual players or teams have brought a ball into play, the player or team whose ball is the farthest from the hole is next to play. In some team events, a player whose ball is farther from the hole may ask his partner to play first. When all players of a group have completed the hole, the player or team with the best score on that hole has the honor, that is, the right to play first on the next tee.

Each player acts as marker for one other player in the group, that is, he or she records the score on a score card. In stroke play (see below), the score consists of the number of strokes played plus any penalty strokes incurred. Penalty strokes are not actually strokes but penalty points that are added to the score for violations of rules or for making use of relief procedures in certain situations.

## Scoring

In every form of play, the goal is to play as few shots per round as possible. Scores for each hole can be described as follows:

Term on a scoreboard	Specific term	Definition
-4	triple-eagle (condor)	four strokes under par
-3	double-eagle (albatross)	three strokes under par
-2	eagle	two strokes under par
-1	birdie	one stroke under par
0	par or even	strokes equal to par
+1	bogey	one stroke more than par
+2	double bogey	two strokes over par
+3	triple bogey	three strokes over par

The two basic forms of playing golf are match play and stroke play.

- In match play, two players (or two teams) play every hole as a separate contest against each other. The party with the lower score wins that hole, or if the scores of both players or teams are equal the hole is "halved" (drawn). The game is won by the party that wins more holes than the other. In the case that one team or player has taken a lead that cannot be overcome in the number of holes remaining to be played, the match is deemed to be won by the party in the lead, and the remainder of the holes are not played. For example, if one party already has a lead of six holes, and only five holes remain to be played on the course, the match is over. At any given point, if the lead is equal to the number of holes remaining, the match is said to be "dormie", and is continued until the leader increases the lead by one hole, thereby winning the match, or until the match ends in a tie. When the game is tied after the predetermined number of holes have been played, it may be continued until one side takes a one-hole lead, and thereupon immediately wins by one hole.

- In stroke play, every player (or team) counts the number of shots taken for the whole round or tournament to produce the total score, and the player with the lowest score wins. A variant of stroke play is Stableford scoring, where a number of points (two for the target score) are given for each hole, and the fewer shots taken, the more points obtained, so the aim is to have as many points as possible. Another variant of stroke play, the Modified Stableford method, awards points on each hole in relation to par and then adds the points over a round; for more details on this method, see the article on The International, a tournament that uses Modified Stableford scoring.

There are many variations of these basic principles, some of which are explicitly described in the "Rules of Golf" and are therefore regarded "official". "Official" forms of play are, among others, foursome and four-ball games.

## **Fees**

If one wishes to play on a golf course, one has to pay a certain fee. There are two different fees: the range fee, which is for the practice range; and the green fee, which allows play on the golf course itself. The green fee may vary from the equivalent of a few U.S. dollars for communal courses in many countries, up to that of several hundred dollars for elite clubs. Discounts on fees may be offered for players starting their round late in the day. If the course has golf carts, there may also be a fee to use them, even if a member of your group is not actively playing. This fee is usually combined with the green fee.

## **Team play**

A foursome (defined in Rule 29) is played between two teams of two players each, in which each team has only one ball and players alternate playing it. For example, if players A and B form a team, A tees off on the first hole, B will play the second shot, A the third, and so

on until the hole is finished. On the second hole, B will tee off (regardless who played the last putt on the first hole), then A plays the second shot, and so on. Foursomes can be played as match play or stroke play.

A four-ball (Rules 30 and 31) is also played between two teams of two players each, but every player plays his own ball and for each team, the lower score on each hole is counted. Four-balls can be played as match play or stroke play.

There are also popular unofficial variations on team play. In a scramble, or ambrose (also known as a best ball tournament), each player in a team tees off on each hole, and the players decide which shot was best. Every player then plays his second shot from where the best ball has come to rest, and the procedure is repeated until the hole is finished.

In a greensome both players tee off, and then pick the best shot as in a scramble. The player who did not shoot the best first shot plays the second shot. The play then alternates as in a foursome.

## **Handicap systems**

A handicap is a numerical measure of an amateur golfer's ability. It can be used to calculate a so-called "net" score from the number of strokes actually played, thus allowing players of different proficiency to play against each other on equal terms. Handicaps are administrated by golf clubs or national golf associations.

Handicaps are complicated, but essentially are the average over par of the ten best scores of the golfer's last 20 rounds, adjusted for course difficulty.

Handicap systems are not used in professional golf. Professional golfers typically score several strokes below par for a round.

## **Golf rules and other regulations**

The rules of golf [1] [2] are internationally standardised and are jointly governed by the Royal and Ancient Golf Club of St Andrews (R&A), which was founded 1754 and the United States Golf Association (USGA). By agreement with the R&A, USGA jurisdiction on the enforcement and interpretation of the rules is limited to the United States and Mexico. Canada has the separate Royal Canadian Golf Association, but generally follows the lead of the two larger bodies in determining rules. Because the rules of golf continue to evolve, amended versions of the rule book are usually published and made effective in a four-year cycle.

The underlying principle of the rules is fairness. As stated on the back cover of the official rule book: "play the ball as it lies", "play the course as you find it", and "if you can't do either, do what is fair". Some rules state that:

- every player is entitled and obliged to play the ball from the position where it has come to rest after a stroke, unless a rule allows or demands otherwise (Rule 13-1)
- a player must not accept assistance in making a stroke (Rule 14-2)

- the condition of the ground or other parts of the course may not be altered to gain an advantage, except in some cases defined in the rules
- a ball may only be replaced by another during play of a hole if it is destroyed (Rule 5-3), lost (Rule 27-1), or unplayable (Rule 28), or at some other time permitted by the Rules. The player may always substitute balls between the play of two holes.

The Decisions on the Rules of Golf are based on formal case decisions by the R&A and USGA and are revised and updated every other year.

There are strict regulations regarding the amateur status of golfers. Essentially, everybody who has ever received payment or compensation for giving instruction or played golf for money is not considered an amateur and may not participate in competitions limited solely to amateurs. Non-cash prizes won in a competition may be accepted within the limits established by the Rules of Amateur Status.

In addition to the officially printed rules, golfers also abide by a set of guidelines called golf etiquette. Etiquette guidelines cover matters such as safety, fairness, easiness and pace of play, and a player's obligation to contribute to the care of the course. Though there are no penalties for breach of etiquette rules, players generally follow the rules of golf etiquette in an effort to improve everyone's playing experience

## Golf course architecture and design

While no two courses are alike, many can be classified into one of the following broad categories:

- *Links* courses: the most traditional type of golf course, of which some centuries-old examples have survived in the British isles. Located in coastal areas, on sandy soil, often amid dunes, with few artificial water hazards and few if any trees. Traditional links courses, such as The Old Course at St. Andrews, are built on "land reclaimed from the sea," land that was once underwater. Linksland "links" the beach to the arable land. It was historically suitable primarily for grazing sheep
- *Parkland* courses: typical inland courses, often resembling traditional British parks, with lawn-like fairways and many trees.
- *Heathland* – a more open, less-manicured inland course often featuring gorse and heather and typically less wooded than "parkland" courses. Examples include Woodhall Spa in England and Gleneagles in Scotland.
- *Desert* courses: a rather recent invention, popular in Australia, parts of the USA and in the Middle East. Desert courses require heavy irrigation for maintenance of the turf, leading to concerns about the ecological consequences of excessive water consumption. A desert course also violates the widely accepted principle of golf course architecture that an aesthetically pleasing course should require minimal alteration of the existing landscape. Nevertheless, many players enjoy the unique experience of playing golf in the desert.

- *Browns* courses: Akin to sand courses (see below), but much more involved in terms of using layers of tar and gravel below the sandy surface layer, to give firmness and support and ensure a consistent bounce/roll. Common in arid parts of the Indian Subcontinent. The world's highest course of any type is a 9-hole browns course in Leh, Ladakh (J&K), maintained by the Indian Army. It is at 11,600 feet. Being beyond the Great Himalaya in an extension of the arid Tibetan Plateau, the region lies in a rain shadow, which would make a greens course impossible to water. Mixed courses that have both brown and green holes are called 'browns-greens' courses; e.g., the green and the central fairway may be grass, but the tee and rough may be brown.

- *Sand* courses: instead of a heavily irrigated 'green', the players play on sand; holes are less 'involved' than browns courses (see above), and are for the casual golfer.

- *Snow* courses: another rather recent invention; golf being played on snow, typically with an orange colored or another brightly colored ball. Can be played in Arctic or subarctic regions during winter.

- *Par 3* courses: The course consists entirely of holes with Par 3. These are considered a good test of iron shot precision and short game, as the driver is rarely used.

- *Executive* courses: A course which generally is smaller than the typical 18-hole course, designed to cater to the fast-paced, executive lifestyle.

In the United States design varies widely, with courses such as the entirely artificial Shadow Creek in Las Vegas, where a course complete with waterfalls was created in the desert, and on the other end of the spectrum, Rustic Canyon outside of Los Angeles, which was created with a minimal amount of earth moving resulting in an affordable daily green fee and a more natural golfing experience.

## Hitting a golf ball

To hit the ball, the club is swung at the motionless ball on the ground (or wherever it has come to rest) from a side stance. Many golf shots make the ball travel through the air (carry) and roll out for some more distance (roll).

Every shot is a compromise between length and precision, as long shots are generally less precise than short ones. Obviously, a longer shot may result in a better score if it helps reduce the total number of strokes for a given hole, but the benefit may be more than outweighed by additional strokes or penalties if a ball is lost, out of bounds, or comes to rest on difficult ground. Therefore, a skilled golfer must assess the quality of his or her shots in a particular situation in order to judge whether the possible benefits of aggressive play are worth the risks.

## Types of shots

- A tee shot is the first shot played from a teeing ground. It is often made with a driver (i.e., a 1-wood) off a tee for long holes, or with an iron on shorter holes. Ideally, tee shots on long holes have a rather shallow flight and long roll of the ball, while tee shots on short holes are flighted higher and are expected to stop quickly.

- A fairway shot is similar to a drive when done with a fairway wood. If accuracy and distance control are required, irons are usually played from the fairway. Irons or wedges are also often used when playing from the rough. However, a tee may not be used once the ball has been brought into play; therefore, playing from the fairway may be more difficult depending on how the ball lies. A clean downward strike is required to "pinch" the ball against the turf in order to get the ball airborne. Mis-hits from the fairway include thin shots, also known as "skulls", and fat shots, also known as "chunks". Thin shots are characterized by striking the middle of the ball, while fat shots occur when the club strikes the turf behind the ball.

- A bunker shot is played when the ball is in a bunker (sand trap). It resembles a pitch and is played with a "sand wedge." The sand wedge is designed with a wider base allowing the club to skid in the sand. The bunker shot differs from other golf shots in that the ball is not touched by the clubhead, but is lifted together with an amount of sand.

- Punch/Knockdown: a low shot that carries through the air in order to clear a low hanging tree branch or sometimes high winds.

- On the green, a putter is used to 'putt' the ball. The ball rolls on the ground, never becoming air-borne.

An approach shot is played into the green from outside the green, usually over an intermediate or short distance. Types of approach shots are:

- Pitch: an approach shot that flies the ball onto or near the green. Depending upon conditions (wind, firmness of fairway and green and/or contour of the green) a skilled player may hit a high, soft landing shot with little roll or a low running shot attempting to keep the ball in the air as much as possible. Depending upon the way the ball is struck, this shot may roll out, stop or even spin backwards towards the player. Pitch shots are usually hit with any club from a six iron to a lob wedge.

- Flop: an even higher approach shot that stops shortly after it hits the ground. It is used when a player must play over an obstacle to the green. It is usually played with a sand wedge or a lob wedge, with the face laid wide open.

- Chip: a low approach shot where the ball makes a shallow flight and then rolls out on the green. Chips are made with a less lofted club than the "pitch" shot or "lob" shot in order to produce the desired flatter trajectory.

## Poor shots

There are several possible causes of poor shots, such as poor alignment of the club, wrong direction of swing, and off-center hits where the clubhead rotates around the ball at impact. Many of these troubles are aggravated with the "longer" clubs and higher speed of swing. Furthermore, the absolute effect of a deviation will increase with a longer shot compared with a short one.

Some of the more common Poor shots are explained below:

**Hook :** The ball flight curves sharply to the left for a right-handed player (to the right for left-handed players). A severe hook is commonly called a Duck-Hook or a Snap hook.

**Slice :** The ball curves sharply to the right for a right-handed player (to the left for left-handed players). For beginning golfers this is the typical outcome of most shots. A severe slice is commonly referred to as a Banana-Slice or a Banana-Ball.

**Pull :** For a right-handed player the ball is 'pulled' across the body and flies to the left of the intended target without curvature (the ball flies to the right for left-handed players). A Pull-Hook indicates that the ball started out left of target and curved even further to the left. A Pull-Slice means the ball starts out left then curves back to the right.

**Push :** The opposite of a Pull, where the ball is 'pushed' away from the body. The ball flies to the right of the intended target for right-handed players (to the left for left-handed players). A Push-Slice indicates that the ball started out right of target and curved even further to the right. A Push-Hook means the ball starts out right then curves back to the left.

**Shank :** The ball is struck by the hosel or the outer edge of the club rather than the clubface and shoots sharply to the right for a right-handed player.

**Thin or Blade or Skull :** The ball is struck with the bottom edge of the club and not its face. This may damage the surface of a golf ball with a soft cover material, and may result in a stinging sensation in one's hands on a cold day.

**Fat :** A fat shot occurs when the club strikes the ground before the ball. A large divot is usually produced along with a clubface covered in the divot.

**Top :** The topside of the ball is struck with the blade of the club. The result usually consists of the ball rolling forward on the ground with much topspin.

**Sky Ball :** The opposite of a Top. This occurs most frequently when teeing the ball up too high, though sometimes a Sky Ball will occur when the ball is sitting on top of long blades of grass and the club has space to pass under the ball. The top side of the club strikes the bottom side of the ball and forces the ball higher into the air than desired. A true sky ball occurs when the ball travels farther vertically than it does horizontally.

**Flyer :** This type of shot usually occurs when playing from deep rough. Grass blades come between the club face and the ball, preventing the grooves of the club from imparting maximum backspin on the ball. This loss of lift from backspin will typically cause a lower, longer shot than a cleanly contacted shot. The resulting flight of the ball is that the target is overshoot by 10 or more yards and the ball does not stop as quickly on the green.

**Hood :** Somewhere during the swing the clubface becomes more perpendicular to the ground, or angled more toward the golfer. The clubface may strike the ground first or get



caught up in heavy rough. This results in the ball flying lower to the ground than intended and usually resulting in a Pull as well.

Worm burner : The ball is hit extremely low to the ground, or bounces rapidly across the ground, essentially "burning up worms" as it speeds along.

Chili Dip : A common miscue while chipping where the ball is flubbed only a few feet forward. Sometimes referred to as a Chunk.

Fried Egg: This situation occurs when the ball lands in a sand bunker and does not move from its landing spot. A small crater, or frying pan, encircles the "egg" (golf ball), and makes the next shot a difficult one.

Foot Wedge : An illegal act of literally kicking one's ball to a better location. The character Judge Smails uses this technique In the movie Caddyshack.

## **The golf swing**

Putts and short chips are ideally played without much movement of the body, but most other golf shots are played using variants of the full golf swing. The full golf swing itself is used in tee and fairway shots.

A full swing is a complex rotation of the body aimed at accelerating the club head to a great speed. For a right-handed golfer, it consists of a backswing to the right, a downswing to the left (in which the ball is hit), and a follow through. At address, the player stands with the left shoulder and hip pointing in the intended direction of ball flight, with the ball before the feet. The club is held with both hands (right below left for right-handed players), the clubhead resting on the ground behind the ball, hips and knees somewhat flexed, and the arms hanging from the shoulders. The backswing is a rotation to the right, consisting of a shifting of the player's body weight to the right side, a turning of the pelvis and shoulders, lifting of the arms and flexing of the elbows and wrists. At the end of the backswing the hands are above the right shoulder, with the club pointing more or less in the intended direction of ball flight. The downswing is roughly a backswing reversed. After the ball is hit, the follow-through stage consists of a continued rotation to the left. At the end of the swing, the weight has shifted almost entirely to the left foot, the body is fully turned to the left and the hands are above the left shoulder with the club hanging down over the players' back.

The full golf swing is an unnatural, highly complex motion and notoriously difficult to learn. It is not uncommon for beginners to spend several months practising the very basics before playing their first ball on a course. It is usually considered impossible to acquire a stable and successful swing without professional instruction and even highly skilled golfers may continue to take golf lessons for many years. One can also purchase or use a new golf simulator that can cost upwards of \$50,000.

Relatively few golfers play left-handed (i.e., swing back to the left and forward to the right), with even players who are strongly left-handed in their daily life preferring the right-handed golf swing. In the past, this may have been due to the difficulty of finding left-handed golf clubs. Today, more manufacturers provide left-handed versions of their club lines, and the clubs are more readily purchased from mail-order and Internet catalogues. A golfer who plays right-handed, but holds the club left-hand-below-right is said to be "cack-handed". It is

difficult to obtain the same consistency and power with this arrangement as is possible with conventional technique.

Besides the physical part, the mental aspect contributes to the difficulty of the golf swing. Golfers play against the course, not each other directly, and hit a stationary object, not one put into motion by an opponent. This means that there is never anyone to blame but oneself for a bad result, and in most competitive formats there are no teammates to directly help one out. Knowledge of this creates a great deal of psychological pressure on the golfer; this pressure exists at all levels of play. Even the best professional golfers sometimes succumb to this pressure, such as getting the "yips" (an infamous affliction of Bernhard Langer) a severe putting disorder caused by uncontrolled muscle spasms of the arms, resulting in a jerking motion during the follow through of the putt causing the ball to go much farther than desired, or having collapses of their full swing (as with Ian Baker-Finch).

A golf ball acquires spin when it is hit. Backspin is imparted in almost every shot due to the golf club's loft (i.e., angle between the clubface and a vertical plane). A spinning ball deforms the flow of air around it [5] similar to an airplane wing; a back-spinning ball therefore experiences an upward force which makes it fly higher and longer than a ball without spin. The amount of backspin also influences the behavior of a ball when it impacts the ground. A ball with little backspin will usually roll out for a few yards/meters while a ball with more backspin may not roll at all, even backwards. Sidespin occurs when the clubface is not aligned perpendicularly to the plane of swing. Sidespin makes the ball curve left or right: a curve to the left is a draw, and to the right a fade (for right-handed players). Accomplished golfers purposely use sidespin to steer their ball around obstacles or towards the safe side of fairways and greens. But because it's sometimes difficult to control or predict the amount of sidespin, balls may take an undesirable trajectory, such as hook to the left, or slice to the right (for right-handed players).

## **Equipment**

### **Golf clubs**

A player usually carries several clubs during the game (but no more than fourteen, the limit defined by the rules). There are three major types of clubs, known as woods, irons, and putters. Wedges are irons used to play shorter shots. Woods are played for long shots from the tee or fairway, and occasionally rough, while irons are for precision shots from fairways as well as from the rough. A new type of wood known as a "hybrid" combines the straight-hitting characteristics of irons with the easy-to-hit-in-the-air characteristics of higher-lofted woods. A "hybrid" is often used for long shots from difficult rough. Hybrids are also used by players who have a difficult time getting the ball airborne with long irons. Wedges are played from difficult ground such as sand or the rough and for approach shots to the green. Putters are mostly played on the green, but can also be useful when playing from bunkers or for some approach shots.

## **Golf balls**

The minimum allowed diameter of a golf ball is 42.67mm and its mass may not exceed 45.93g. Modern golf balls have a two-, three-, or four-layer design constructed from various synthetic materials. The surface usually has a pattern of 300-400 dimples designed to improve the ball's aerodynamics. The method of construction and materials used greatly affect the ball's playing characteristics such as distance, trajectory, spin and feel. Harder materials, such as Surlyn, usually result in the ball's traveling longer distances, while softer covers, such as Balata, tend to generate higher spin, more "feel" and greater stopping potential. Golf balls are separated into three groups depending on their construction: two-, three-, or four-piece covers. Generally four-piece golf balls tend to be the most expensive, though price is no assurance of quality. As of 2006 there are even golf balls that utilize RFID technology, which allows golfers to more easily locate errant shots using a handheld homing device.

## **Golf Shafts**

Golf shafts are used between the grip and the "club head". The profile of the golf shaft is circular in shape and some of the strongest and lightest materials are used to make the golf shaft. Graphite and tempered steels are used for the best strength. In 2006 the newest profiles that are USGA approved and have ultimate strength are *Triangle Golf Shafts* or some call the shaft *Trigraphite Shafts*.

## **Other equipment**

Sometimes transport is by special golf carts. Clubs and other equipment are carried in golf bags. Golfers wear special shoes with exchangeable spikes (or small plastic claws termed soft spikes) attached to the soles. They also often wear gloves that help grip the club and prevent blistering. Golf tees resemble nails with a small cup on the head and are usually made of wood or plastic. A tee is pushed into the ground to rest a ball on top of for an easier shot; however, this is only allowed for the first stroke (tee shot or drive) of each hole. When on the green, the ball may be picked up to be cleaned or if it is in the way of an opponent's putting line; its position must then be marked using a ball marker (usually a flat, round piece of plastic or a coin). A ball mark repair tool (or pitchfork) is used to repair a ball mark (depression in the green where a ball has hit the ground). To repair a ball mark, one pushes the tool under the mark, and lifts upwards gently, loosening the compacted turf to allow rapid regrowth of grass. Scores are recorded on a score card during the round.

## **History**

The origin of golf is open to debate among Chinese, French, and Scottish. Golf is generally regarded to be a Scottish invention, as the game was mentioned in two 15th-century laws prohibiting the playing of the game of "gowf". Some scholars, however, suggest that this refers to another game which is much akin to shinty or hurling, or to modern field hockey.[citation needed] They point out that a game of putting a small ball in a hole in the ground using golf clubs was played in 17th-century Netherlands. The term golf is believed to have originated from a Germanic word for "club".

The oldest playing golf course in the world is The Old Links at Musselburgh. Evidence has shown that golf was played on Musselburgh Links in 1672 although Mary, Queen of Scots reputedly played there in 1567.

Golf courses have not always had eighteen holes. The St Andrews Links occupy a narrow strip of land along the sea. As early as the 15th century, golfers at St. Andrews established a customary route through the undulating terrain, playing to holes whose locations were dictated by topography. The course that emerged featured eleven holes, laid out end to end from the clubhouse to the far end of the property. One played the holes out, turned around, and played the holes in, for a total of 22 holes. In 1764, several of the holes were deemed too short, and were therefore combined. The number was thereby reduced from 11 to nine, so that a complete round of the links comprised 18 holes.

The major changes in equipment since the 19th century have been better mowers, especially for the greens, better golf ball designs, using rubber and man-made materials since about 1900, and the introduction of the metal shaft beginning in the 1930s. Also in the 1930s the wooden golf tee was invented. In the 1970s the use of metal to replace wood heads began, and shafts made of graphite composite materials were introduced in the 1980s.

In January 2006, new evidence re-invigorated the debate concerning the origins of golf. Recent evidence unearthed by Prof. Ling Hongling of Lanzhou University suggests that a game similar to modern-day golf was played in China since Southern Tang Dynasty, 500 years before golf was first mentioned in Scotland.

Dongxuan Records (Chinese:qǒ) from the Song Dynasty describe a game called chuiwan (v8) and also include drawings. It was played with 10 clubs including a cuanbang, pubang, and shaobang, which are comparable to a driver, two-wood, and three-wood. Clubs were inlaid with jade and gold, suggesting golf was for the wealthy. Chinese archive includes references to a Southern Tang official who asked his daughter to dig holes as a target. Ling suggested golf was exported to Europe and then Scotland by Mongolian travellers in the late Middle Ages.

A spokesman for the Royal and Ancient Golf Club of St. Andrews, one of the oldest Scotland golf organization, said "Stick and ball games have been around for many centuries, but golf as we know it today, played over 18 holes, clearly originated in Scotland."

## **Social aspects of golf**

In the United States, golf is the unofficial sport of the business world. It is often said that board meetings merely confirm decisions that are actually made on the golf course. For this reason, the successful conduct of business golf (which extends beyond merely knowing the game) is considered a useful business skill; various schools, including prestigious universities such as Stanford University, have started both undergraduate and graduate-level courses that teach "business golf." The PGA of America, an organization separate from the PGA Tour, helps to sponsor these programs at universities nationwide.

## **Cost to Play**

The cost of an average round of golf is USD \$36 [8], and the sport is regularly enjoyed by over 26 million Americans and many more world-wide. In fact, most regions of the United States feature public courses which strive to be affordable for the average golfer. The fact that golf tends to be a sport associated with wealthy businesspeople and professionals (doctors golfing on Wednesdays, corporate golf days, etc), not to mention the high prices and wealthy clientele that can afford to pay to join elite country clubs, contribute to the perception that golf is expensive. By contrast, there is no other single sport that might be compared to golf as a sport for affluent people (hunting may be on par, so to speak, as the sport of business in the American south, but golf is still pervasive in the south while hunting, which is common in the American north and midwest, is less prevalent as a business sport, while golf remains the standard). Caddyshack did not do much to elevate this belief above observable reality.

To compare golf against other sports is to quantify what makes it more expensive:

- Golf is not a game in which equipment can be comfortably shared. By comparison, 12 people can share one soccer ball and 10 people can share one basketball. Buying or even renting an entire set of golf clubs immediately becomes more expensive.
- Playing golf requires paying a green fee to enter a golf course. Meanwhile, playing soccer or touch-football or basketball at a school field or public playground is free of cost.
- Exposure to golf is also not as accessible as other sports. For example, most kids will play baseball or hockey or football or soccer in high school, and the equipment is provided (usually for a registration fee that has been subsidized or sponsored privately). However, few high schools offer a golf program where kids can be exposed to and learn the game at a relatively cheaper price.
- Comparing golf to other individual (rather than team) sports, golf is still more expensive. One racquet for a racquet sport (tennis, squash, racquetball) is still much cheaper than a set of clubs, and registration at a racquet club or even a local YMCA for a month can be cheaper than one day at the golf course. Moreover, kids can borrow an old racquet and hit a ball against a school wall for free, while

there really is no way to practice driving a tee shot or chipping unless one pay to play golf or pay to work at a driving range or indoor golf training facility.

Further, the social status of better (and usually more expensive) equipment cannot be overlooked. Few will notice or care the condition of a baseball glove as long as you can catch a ball in it. Similarly, as long as a basketball has enough air to bounce evenly, no one cares what condition it is. In order to be outfitted with the latest equipment (including rather expensive clothing, shoes and gloves) one can end up spending quite a sum. Also, greens fees at some of the more picturesque and prestigious courses can be quite sizeable. Again, because golf has become the platform through which business people interact, evaluate each other, and generally talk/negotiate, the quality of one's clubs and dress are an expression of their success; "if one can't afford decent clubs and clothes, or hasn't the interest in spending enough money to look decent on the course, perhaps that one is not successful in business, or serious about doing business with me".

### **Cost of Maintenance**

The maintenance and upkeep of a golf course demands significant expense. Public outdoor tennis courts also require fees which are allocated in part to maintenance and upkeep. Unlike a school soccer field or neighbourhood basketball court, a golf course cannot be left to the elements. Moreover, unlike a basketball or tennis court, grass continues to grow, as do weeds, trees, etc, which must be constantly and regularly trimmed and kept in order to maintain a clean course. As well, families of local fauna must be kept in check (squirrels and foxes can make for picturesque scenes, but skunks and raccoons can't be permitted to take up residence).

The sheer size of a golf course (on average, 75 acres) demands no small amount of crew and equipment. But, not just any crew or any equipment - specialized groundskeepers and specialized equipment must be used to maintain a stimulating and beautiful tee, fairway, green, as well as bunkers, water hazards, etc. Quality grasses, soils, flora, and a high degree of ever-changing technology requires that a country club can't really "go cheap" and expect to remain profitable.

### **Golfing countries**

In 2005 Golf Digest calculated that there were nearly 32,000 golf courses in the world, approximately half of them in the United States. [9] The countries with most golf courses in relation to population, starting with the best endowed were: Scotland, New Zealand, Australia, Republic of Ireland, Northern Ireland, Canada, Wales, United States, Sweden, and England (countries with less than 500,000 people were excluded). Apart from Sweden all of these countries have English as the official language, but the number of courses in new golfing territories is increasing rapidly. For example the first golf course in the People's Republic of China only opened in the mid-1980s, but by 2005 there were 200 courses in that country.

The professional sport was initially dominated by British golfers, but since World War I, America has produced the greatest quantity of leading professionals. Other Commonwealth countries such as Australia and South Africa are also traditional powers in the sport. Since around the 1970s, Japan, Scandinavian and other Western European countries have produced leading players on a regular basis. The number of countries with high-class professionals continues to increase steadily, especially in East Asia. South Korea is notably strong in women's golf. More information is available at [10].

## **Professional golf**

Golf is played professionally in many different countries. The majority of professional golfers work as club or teaching professionals, and only compete in local competitions. A small elite of professional golfers are "tournament pros" who compete full time on international "tours".

## **Golf tours**

There are at least twenty professional golf tours, each run by a PGA or an independent tour organisation, which is responsible for arranging events, finding sponsors, and regulating the tour. Typically a tour has "members" who are entitled to compete in all of its events, and also invites non-members to compete in some of them. Gaining membership of an elite tour is highly competitive, and most professional golfers never achieve it.

The most widely known tour is the PGA TOUR (officially rendered in all caps), which attracts the best golfers from all the other men's tours. This is due mostly to the fact that most PGA TOUR events have a first prize of at least USD 800,000. The European Tour, which attracts a substantial number of top golfers from outside North America, ranks second to the PGA TOUR in worldwide prestige. Some top professionals from outside North America play enough tournaments to maintain membership on both the PGA TOUR and European Tour. There are several other men's tours around the world.

Golf is unique in having lucrative competition for older players. There are several senior tours for men 50 and older, the best known of which is the U.S.-based Champions Tour.

There are five principal tours for women, each based in a different country or continent. The most prestigious of these is the U.S.-based LPGA Tour.

## **Men's major championships**

The major championships are the four most prestigious men's tournaments of the year. In current (2005) chronological order they are:

- The Masters
- U.S. Open

The Open Championship (referred to in North America as the British Open)  
PGA Championship

The fields for these events include the top several dozen golfers from all over the world. The Masters has been played at Augusta National Golf Club in Augusta, Georgia since its inception in 1934. The U.S. Open and PGA Championship are played at various courses around the United States, while The Open Championship is played at various courses in the UK.

The number of major championships a player accumulates in his career has a very large impact on his stature in the sport. Jack Nicklaus is widely regarded as the greatest golfer of all time, largely because he has won a record 18 professional majors, or 20 majors in total if his two U.S. Amateurs are included. Tiger Woods, who may be the only golfer likely to challenge Nicklaus's record, has won ten professional majors (13 total if his three U.S. Amateurs are included), all before the age of thirty. Woods also came closest to winning all four current majors in one season (known as a Grand Slam completed first by Bobby Jones) when he won them consecutively across two seasons: the 2000 U.S. Open, Open Championship, and PGA Championship; and the 2001 Masters. This feat has been frequently called the Tiger Slam.

Prior to the advent of the PGA Championship and The Masters, the four Majors were the U.S. Open, the U.S. Amateur, the Open Championship, and the British Amateur. These are the four that Bobby Jones won in 1930 to become the only player ever to have earned a Grand Slam.

## **Women's majors**

Women's golf does not have a globally agreed set of majors. The LPGA's list of majors has changed several times over the years, with the last change in 2001. Like the PGA TOUR, the LPGA currently has four majors:

Kraft Nabisco Championship  
U.S. Women's Open  
LPGA Championship  
Women's British Open

Only the last of these is also recognised by the Ladies European Tour.

## **Environmental impact**

Environmental concerns over the use of land for golf courses have grown over the past 50 years. Specific concerns include the amount of water and chemical pesticides and fertilizers used for maintenance, as well as the destruction of wetlands and other environmentally important areas during construction.

These, along with health and cost concerns, have led to significant research into more environmentally sound practices and turf grasses. The modern golf course superintendent is well trained in the uses of these practices and grasses. This has led to reductions in the



amount of chemicals and water used on courses. The turf on golf courses is an excellent filter for water and has been used in many communities to cleanse grey water. While many people continue to oppose golf courses for environmental reasons, there are others who feel that they are beneficial for the community and the environment as they provide corridors for migrating animals and sanctuaries for birds and other wildlife.

A major result of modern equipment is that today's players can hit the ball much further than previously. In a concern for safety, modern golf course architects have had to lengthen and widen their design envelope. This has led to a ten percent increase in the amount of area that is required for golf courses today. At the same time, water restrictions placed by many communities have forced many courses to limit the amount of maintained turf grass. While most modern 18-hole golf courses occupy as much as 60 ha (150 acres) of land, the average course has 30 ha (75 acres) of maintained turf. (Sources include the National Golf Foundation and the Golf Course Superintendents Association of America [GCSAA].)

Golf courses are built on many different types of land, including sandy areas along coasts, abandoned farms, strip mines and quarries, deserts and forests. Many Western countries have instituted significant environmental restrictions on where and how courses can be built.

In some parts of the world, attempts to build courses and resorts have led to significant protests along with vandalism and violence by both sides. Although golf is a relatively minor issue compared to other land-ethics questions, it has symbolic importance as it is a sport normally associated with the wealthier Westernized population, and the culture of colonization and globalization of non-native land ethics. Resisting golf tourism and golf's expansion has become an objective of some land-reform movements, especially in the Philippines and Indonesia.

In Saudi Arabia, golf courses have been constructed on nothing more than oil-covered sand. However, in some cities such as Dhahran, modern, grass golf courses have been built recently.

In Coober Pedy, Australia, there is a famous golf course that consists of nine holes dug into mounds of sand, diesel and oil and not a blade of grass or a tree to be seen. You carry a small piece of astroturf from which you tee.

In New Zealand it is not uncommon for rural courses to have greens fenced off and sheep graze the fairways. Many golf courses have been displaced by urban planning practices. Many things that displace golf courses range from neighborhoods to shopping malls.

## **Etymology**

The word Golf is first mentioned in 1457 in a Scottish statute on forbidden games as Gouf, which may be related to Dutch kolf, "bat, club". A folk etymology also suggests golf refers to "Gentlemen Only Ladies Forbidden".

## **Golf Movies**

A Gentlemen's Game  
Happy Gilmore

The Greatest Game Ever Played  
The Legend of Bagger Vance  
Tin Cup  
Caddyshack

## Tennis

*Tennis* is a sport played between either two players ("Singles") or two teams of two players ("doubles"). Players use a stringed racquet to strike a ball, a hollow rubber ball covered in felt, over a net into the opponent's court. In some places tennis is still called *lawn tennis* to distinguish it from real tennis (also known as royal tennis or court tennis), an older form of the game that is played indoors on a very different kind of a court. Originating in England in the late 19th Century, the game spread first throughout the English-speaking world, particularly among the upper classes. Tennis is now an Olympic sport and is played at all levels of society, by all ages, and in many countries around the world. Except for the adoption of the tie-breaker in the 1970s, its rules have remained remarkably unchanged since the 1890s. Along with its millions of players, millions of people follow tennis as a spectator sport, especially the four Grand Slam tournaments.

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## **Manner of play**

### **The court**

Tennis is played on a rectangular, flat surface, usually of grass, clay, or concrete. The court is 78 feet (23.77 m) long, and its width is 27 feet (8.23 m) for singles matches and 36 feet (10.97 m) for doubles matches. Additional clear space around the court is required in order for players to reach overrun balls. A net is stretched across the full width of the court, parallel with the baselines, dividing it into two equal ends. The net is 3 feet 6 inches (1.07 m) high at the posts, and 3 feet (914 mm) high in the center.

### **Types of Courts**

There are three main types of courts. Depending on the materials used for the court surfaces, each surface provides a difference in the speed and bounce of the ball, which in turn can affect the level of play of the individual players. The three most common types of courts that are used for play are:

Clay court

Grass court

Hardcourt

Some players are clearly more successful on certain surfaces than on others and become known as, for instance, a "grass-court" or "Clay-court specialist".

Hardcourt encompasses many different surfaces ranging from old-fashioned concrete courts, to coated asphalt, to wooden gymnasium surfaces, to artificial grass similar to AstroTurf.

Clay courts are considered "slow", meaning that balls first lose speed as they hit the court and then bounce relatively high, making it more difficult for a player to hit an unreturnable shot, called a winner. On clay courts, line calls are easily reviewable because the ball leaves a visible mark.

Hardcourts and grass are "fast" surfaces, where fast, low bounces keep rallies short and where hard-serving and hard-hitting players have an advantage. Grass courts add an additional variable, with bounces depending on how healthy the grass is and how recently it has been mowed.

For the Grand Slam tournaments, different kinds of courts are used: The U.S. Open and Australian Open use hardcourts, the French Open is played on clay, and Wimbledon is played on grass.

## **Play of a single point**

The players (or teams) start on opposite sides of the net. One player is designated the server, and the opposing player, or in doubles one of the opposing players, is the receiver. Service alternates between the two halves of the court.

For each point, the server starts behind his baseline, between the center mark and the sideline. The receiver may start anywhere on his side of the net, usually behind the service box. When the receiver is ready, the server will serve.

In a legal service, the ball travels over the net (without touching it) and into the diagonally opposite service court. If the ball hits the net but lands in the service court, this is a let service, which is void and the server gets two more serves. If the first service is otherwise faulty in any way, wide, long or not over the net, the serving player has a second attempt at service. If the second service is also faulty, this is a double fault and the receiver wins the point. However if the serve is in then it is considered a legal service.

A legal service starts a rally, in which the players alternate hitting the ball across the net. A legal return consists of the player or team hitting the ball exactly once before it has bounced twice or hit any fixtures. It then travels back over the net and bounces in the court on the opposite side. The first player or team to fail to make a legal return loses the point.

## **Scoring**

A tennis match usually comprises one to five sets. A set consists of a number of games, and games, in turn, consist of points.

Matches consist of an odd number of multiple sets, the match winner being the player who wins more than half of the sets. The match ends as soon as this winning condition is met. Some matches may consist of five sets (the winner being the first to win three sets), while most matches are three sets (the winner being the first to win two sets).

A set consists of a sequence of games played with service alternating between games, ending when the count of games won meets certain criteria. Typically, a player wins a set when he wins at least six games and at least two games more than his opponent. It has become common, however, to play a "twelve-point tiebreak" or "tiebreaker" when each player has won six games. A tiebreaker, played under a separate set of rules, allows one player to win one more game and thus the set, to give a final set score of 7-6.

A game consists of a sequence of points played with the same player serving, and is won by the first player to have won at least four points and at least two points more than his opponent. The running score of each game is described in a manner particular to tennis: scores of zero to three points are described as "love" or "zero", "fifteen", "thirty", and "forty" respectively. When at least three points have been scored by each side and the players have the same number of points, the score is "deuce". When at least three points have been scored by each side and a player has one more point than his opponent, the score of the game is "advantage" for the winning player. During informal games, "advantage" can also be called "ad in" or "ad out", depending on whether the serving player or receiving player, respectively, is ahead.

A game point occurs in tennis whenever the player who is in the lead in the game (the smallest unit of play) needs only one more point to win the game. The terminology is extended to sets (set point), matches (match point), and even championships (championship point). For example, if the player who is serving has a score of 40-love, he has a triple game point (triple set point, etc.).

A break point occurs if the receiver, not the server, has a game point. It is of importance in professional tennis, since service breaks happen less frequently with professional players. It may happen that the player who is in the lead in the game has more than one chance to score the winning point, even if his opponent should take the next point(s). For example, if the player who is serving has a score of 15-40, the receiver has a double break point. Should the player in the lead take any one of the next two points, he wins the game.

For two years before the Open Era, in 1955 and 1956, the United States Pro Championship in Cleveland, Ohio was played by the Van Alen Streamlined Scoring System (VASSS) rules, created by James Van Alen, who later invented the tie-breaker. The scoring was the same as that in table tennis, with sets played to 21 points and players alternating 5 services, with no second service. The rules were partially created in order to limit the effectiveness of the powerful service of the reigning professional champion, Pancho Gonzales. Even with the new rules, however, Gonzales beat Pancho Segura in the finals of both tournaments. Even though the 1955 match went to 5 sets, with Gonzales barely holding on to win the last one 21-19, apparently it took only 47 minutes to play.[1] The fans attending the matches preferred the traditional rules, however, and in 1957 the tournament reverted to the old method of scoring.

## **Officials**

In serious play there is an officiating chair umpire (usually referred to as the umpire), who sits in a raised chair to one side of the court. The umpire has absolute authority to determine matters of fact. The chair umpire may be assisted by line umpires, who determine whether the ball has landed within the required part of the court and who also call foot faults. There may also be a net umpire who determines whether the ball has touched the net during service. In some open-tournament matches, players are allowed to challenge a limited number of close calls by means of instant replay in order to have the call overturned. In clay-court matches, a call may be questioned by reference to the mark left by the ball's impact on the court surface.

Ball boys or girls (who are usually children) may be employed to retrieve balls, pass them to the players, and hand players their towels. They have no adjudicative role. The referee, who is usually located off the court, is the final authority on the rules.

In some leagues players will make their own calls based upon the honor code. This is the case for many high school and college level matches.

## **Miscellaneous**

A tennis match is intended to be continuous. Stamina is a relevant factor, so arbitrary delays are not permitted. In most cases, service is required to occur no more than 20 seconds after the end of the previous point. This is increased to 90 seconds when the players change ends (every two games), and a 120 second break is permitted between sets. Other than this, breaks are permitted only when forced by events beyond the players' control, such as rain, damaged footwear, or the need to chase an errant ball.

Balls wear out quickly in serious play, and therefore are changed after every nine games. The first such change occurs after only seven games, because the first set of balls is also used for the pre-match warm-up. Continuity of the balls' condition is considered part of the game, so if a re-warm-up is required after an extended break in play (usually due to rain) then the re-warm-up is done using a separate set of balls, and use of the match balls is resumed only when play resumes.

Wheelchair tennis can be played by able-bodied players as well as people who require a wheelchair for mobility. The use of legs or feet is then prohibited, and the player is required to remain seated in the wheelchair. There is an exception for those who are only able to propel themselves using a foot. In wheelchair tennis, in which the players move in wheelchairs instead of using legs, an extra bounce is permitted. This rule makes it possible to have mixed wheelchair and legs matches. It is possible for a doubles team to consist of a wheelchair user and a legs user, or for a wheelchair user to play against a legs user. In such cases, the extra bounce is permitted for the wheelchair users only.

Another, informal, tennis format is called "Canadian doubles" (also referred to as "American Doubles" in Australia, and "Australian Doubles" in Canada). This involves three players, with one person playing against a doubles team. For the single player, singles-court rules apply (such that the ball must be within the singles-court lines) but on the side of the doubles team, doubles-court rules apply (the alleys are considered in). The scoring is the same as a regular game. This format is not sanctioned by any official body and is only played when a fourth player is not available for normal doubles.

Lastly, there is a tennis formation called "Australian doubles" in which both players on the same team line up on the same side of the court, with one player at the net and one in the backcourt. The one in back will generally move to the vacant side of the court after the point begins, which forces the opposing player to hit the ball down the line. This formation also allows the player at the net to poach more easily.

### **Other Rules of Play Used in American College Tennis**

As of 1999, in Division I tennis at the college level, a let service is considered playable. This rule change was made to prevent receivers from falsely claiming a valid service to be a let, which is a call that cannot be overruled. Thus, a service that hits the net before landing in the service box is a playable shot, and must be returned by the receiver. Otherwise, the receiver loses the point.

### **Other Rules of Play Used in American High School Tennis**

During high school tennis team matches players may have to follow a few different rules:

**Pro set:** Instead of playing best out of three sets, players may play one pro set. A pro set is first to 8 games instead of 6. All other rules apply.

**Super tie-break:** This is played sometimes after players split sets (Each wins one set). It decides who wins instead of a third set. This is played like a regular tie-break but you go to ten instead of seven.

**No-ad:** You play through the match without any ads. When the game is at deuce the receiving player has the option to choose what side of court (either the deuce side or the ad side) they want to receive the serve for the final game-deciding point. The first player or team to four points wins the game.

## **Shots**

A competent tennis player has eight basic shots in his or her repertoire: the serve, forehand, backhand, volley, half-volley, overhead smash, drop shot, and lob.

## **Serve**

A serve (or, more formally, a "service") in tennis is a shot to start a point. The serve is initiated by tossing the ball into the air and hitting it (usually near the apex of its trajectory) into the diagonally opposite service box without touching the net. The serve may be hit under- or overhand.

Experienced players strive to master the conventional overhand serve to maximize its power and placement. The server may employ different types of serve:

Flat Serve

*Topspin Serve* (Sometimes called a "Kick/Kicker" serve. Often times confused with the "American Twist" serve, since both types of serves are called "Kick/Kicker" serves.)

*American Twist/Twist Serve* (Also, sometimes called a "Kick/Kicker" serve, which can confuse people, since "Topspin" serves are also called the same thing. Furthermore, this serve is often times confused with the "Topspin-Slice" serve as well.)

Slice/Slider/Sidespin Serve

*Topspin-Slice Serve* (Often times confused to be the same as the *American Twist/Twist*, though it's not. The serves are very different from one another.)

Reverse Slice/Reverse Slider/Reverse Sidespin Serve

Reverse Twist/Reverse American Twist Serve

Reverse Topspin-Slice Serve

A reverse type of spin serve is hit in a manner that spins the ball opposite the natural spin of the server, the spin direction depending upon right- or left-handedness.

Some servers are content to use the serve simply to initiate the point; advanced players often try to hit a winning shot with their serve. A winning serve that is not touched by the

opponent is called an *ace*; if the receiver manages to touch it but fails to successfully return it, it is called a *service winner*.

## **Forehand**

For a right-handed player, the forehand is a stroke that begins on the right side of his body, continues across his body as contact is made with the ball, and ends on the left side of his body. There are various grips for executing the forehand and their popularity has fluctuated over the years. The most important ones are the continental, the eastern, "semi-western" and the western. For a number of years the small, apparently frail 1920s player Bill Johnston was considered by many to have had the best forehand of all time, a stroke that he hit shoulder-high using a western grip. Few top players used the western grip after the 1920s, but in the latter part of the 20th century, as shot-making techniques and equipment changed radically, the western forehand made a strong comeback and is now used by many modern players. No matter which grip is used, most forehands are generally executed with one hand holding the racquet, but there have been fine players with two-handed forehands. In the 1940s and 50s the Ecuadorian/American player Pancho Segura used a two-handed forehand to devastating effect against larger, more powerful players, and many females and young players use the two-handed grips today.

## **Backhand**

For right-handed players, the backhand is a stroke that begins on the left side of their body, continues across their body as contact is made with the ball, and ends on the right side of their body. It can be executed with either one hand or with both and is generally considered more difficult to master than the forehand. For most of the 20th Century it was performed with one hand, using either an eastern or a continental grip. The first notable players to use two hands were the 1930s Australians Vivian McGrath and John Bromwich, but they were lonely exceptions. The two-handed grip gained popularity in the 1970s as Björn Borg, Chris Evert, Jimmy Connors, and later Mats Wilander used it to great effect, and it is now used by a large number of the world's best players, including Andre Agassi. Andy Roddick, uses the "extreme western" grip to create massive amounts of top spin. It is difficult to do this and also causes injuries when done incorrectly. Two hands give the player more power, while one hand can generate a slice shot, applying backspin on the ball to produce a low trajectory bounce. The player long considered to have had the best backhand of all time, Don Budge, had a very powerful one-handed stroke in the 1930s and '40s that imparted topspin onto the ball. Ken Rosewall, another player noted for his one-handed backhand, used a deadly accurate slice backhand with underspin through the 1950s and '60s. A small number of players, notably Monica Seles, use two hands on both the backhand and forehand sides.



## **Other shots**

A volley is made in the air before the ball bounces, generally near the net, and is usually made with a stiff-wristed punching motion to hit the ball into an open area of the opponent's court. The half volley is made by hitting the ball on the rise just after it has bounced, once again generally in the vicinity of the net. From a poor defensive position on the baseline, the lob can be used as either an offensive or defensive weapon, hitting the ball high and deep into the opponent's court to either enable the lobber to get into better defensive position or to win the point outright by hitting it over the opponent's head. If the lob is not hit deeply enough into the other court, however, the opponent may then hit an overhead smash, a hard, serve-like shot, to try to end the point. Finally, if an opponent is deep in his court, a player may suddenly employ an unexpected drop shot, softly tapping the ball just over the net so that the opponent is unable to run in fast enough to retrieve it.

## **Tournaments**

Tournaments are often organized by gender and number of players. Common tournament configurations include men's singles, women's singles, doubles (where two players of the same sex play on each side), and mixed doubles (with a member of each sex per side). Tournaments may be arranged for specific age groups, with upper age limits for youth and lower age limits for senior players. There are also tournaments for handicapped players. In the four grand slams, the draw (the maximum number of players allowed in a particular category of the tournament) is 128 people.

Players may also be matched by their skill level. According to how well a person does in sanctioned play, he or she is given a rating (examples from the U.S. system called the National Tennis Rating Program (NTRP): 2.5, 3.0, 3.5, 4.0, 4.5, etc.) which is adjusted periodically to maintain competitive matches.

## **History**

Tennis has a long history (deriving from the 'jeu de paume'), but its establishment as the modern sport can be dated to two separate roots. In 1856, Alex Ryden, a solicitor, and his friend Batista Pereira, a Spanish merchant, who both lived in Birmingham, England played a game they named "pelota", after a Spanish ball game. The game was played on a lawn in Edgbaston. In 1872 both men moved to Leamington Spa, and with two doctors from the Warneford Hospital, played pelota on the lawn behind the Manor House Hotel (now residential apartments). Pereira joined with Dr. Frederick Haynes and Dr. A. Wellesley Tomkins to found the first lawn tennis club in the world, and played the game on nearby lawns. In 1874 they formed the Leamington Tennis Club, setting out the original rules of the game. The Courier of 23 July 1884 recorded one of the first tennis tournaments, held in the grounds of Shrubland Hall (demolished 1948).

In December 1873, Major Walter Clopton Wingfield devised a similar game for the amusement of his guests at a garden party on his estate at Nantclwyd, Wales. He based the game on the older sport of indoor tennis or real tennis ("royal tennis"), which had been invented in 12th century France and was played by French aristocrats down to the time of the French Revolution.

According to most tennis historians, modern tennis terminology also derives from this period, as Wingfield borrowed both the name and much of the French vocabulary of royal tennis and applied them to his new game:

- Tennis comes from the French *tenez*, the imperative form of the verb *tenir*, to hold: This was a cry used by the player serving in royal tennis, meaning "I am about to serve!" (rather like the cry "Fore!" in golf).
- Racquet comes from *raquette*, which derives from the Arabic *rakhat*, meaning the palm of the hand.
- Deuce comes from *à deux le jeu*, meaning "to both is the game" (that is, the two players have equal scores).
- Love may come from *l'oeuf*, the egg, a reference to the egg-shaped zero symbol; however, since "un oeuf" is more commonly used, the etymology remains in question.
- The convention of numbering scores "15", "30" and "40" comes from *quinze*, *trente* and *quarante*, which to French ears makes a euphonious sequence.

Seeing the commercial potential of the game, Wingfield patented it in 1874, but never succeeded in enforcing his patent. Tennis spread rapidly among the leisured classes in Britain and the United States. It was first played in the U.S. at the home of Mary Ewing Outerbridge on Staten Island, New York in 1874.

In 1881 the desire to play tennis competitively led to the establishment of tennis clubs. The first championships at Wimbledon, in London were played in 1877. In 1881 the United States National Lawn Tennis Association (now the United States Tennis Association) was formed to standardize the rules and organize competitions. The comprehensive I.L.T.F. rules promulgated in 1924 have remained remarkably stable in the ensuing eighty years, the one major change being the addition of the tie-breaker system designed by James Van Alen. U.S. National Men's Singles Championship, now the U.S. Open, was first held in 1881 at Newport, Rhode Island. The U.S. National Women's Singles Championships were first held in 1887. The Davis Cup, an annual competition between national teams, dates to 1900.

Tennis was for many years predominantly a sport of the English-speaking world, dominated by the United States, Britain and Australia. It was also popular in France, where the French Open dates to 1891. Thus Wimbledon, the U.S. Open, the French Open and the Australian Open (dating to 1905) became and have remained the most prestigious events in tennis. Together these four events are called the Grand Slam (a term borrowed from bridge). Winning the Grand Slam, by capturing these four titles in one calendar year, is the highest ambition of most tennis players.

In 1926 promoter C.C. ("Cash and Carry") Pyle established the first professional tennis tour with a group of American and French tennis players playing exhibition matches to paying audiences. The most notable of these early professionals were the American Vinnie Richards and the Frenchwoman Suzanne Lenglen. For 42 years professional and amateur

tennis remained strictly separate. Once a player turned pro he or she could not compete in the major (amateur) tournaments. In 1968, commercial pressures led to the abandonment of this distinction, inaugurating the Open era, in which all players could compete in all tournaments, and top players were able to make their living from tennis.

With the beginning of the Open era, the establishment of an international professional tennis circuit, and revenues from the sale of television rights, tennis has spread all over the world and has lost its upper-class English-speaking image. Since the 1970s great champions have emerged from Germany (Boris Becker, Steffi Graf), the former Czechoslovakia (Ivan Lendl, Martina Navrátilová, and Hana Mandlíková), Sweden (Björn Borg, Stefan Edberg and Mats Wilander), Brazil (Gustavo Kuerten), Russia (Yevgeny Kafelnikov and Marat Safin), Belgium (Kim Clijsters and Justine Henin-Hardenne), Spain (Juan Carlos Ferrero, Arantxa Sanchez Vicario, Carlos Moya, and Rafael Nadal), Switzerland (Martina Hingis and Roger Federer) and from many other countries.

In 1954 James Van Alen founded the International Tennis Hall of Fame, a non-profit museum in Newport, Rhode Island. The building contains a large collection of tennis memorabilia as well as a hall of fame honoring prominent members and tennis players from all over the world. Each year, a grass-court tournament is hosted on the grounds that are home to the Tennis Hall of Fame, as well as an induction ceremony honoring new Hall of Fame members.

## **Great Players**

Numerous great players played in the days before tennis's Open era, many of whom are unknown by modern sports fans. Among them, chronologically, are:

"Big Bill" Tilden - winner of 21 amateur Grand Slam titles, 7 consecutive Davis Cups, 4 professional Grand Slam titles, the professional doubles title at age 52; was for 7 years the World No. 1 player

Jean Borotra, Henri Cochet, René Lacoste - the three best of the "Four Musketeers", won 46 amateur Grand Slam titles amongst them, 6 consecutive Davis Cups, 1 professional Grand Slam title; one was for 5 years the World No. 1 player

Ellsworth Vines - winner of 6 amateur Grand Slam titles, 4 professional Grand Slam titles; was world #1 professional player, 1933-1937; had a tremendous flat, hard service; was for 3 years the World No. 1 player

Fred Perry - won 13 amateur Grand Slam titles including 3 consecutive Wimbledons; was the first to win 4 consecutive Grand Slam titles; won 2 professional Grand Slam titles; was for 4 consecutive years the World No. 1 player

Don Budge - winner of 14 amateur Grand Slam titles; was the first to win 4 Grand Slam titles in a single year, 4 professional Grand Slam titles; is widely viewed as having had the best backhand of all time before Rosewall; was for 6 consecutive years the World No. 1 player

Bobby Riggs - winner of 6 amateur Grand Slam titles, 4 professional Grand Slam titles and 7 times a finalist; was world #1 professional player 1946-1947 and for those 2 years the World No. 1 player

Jack Kramer - won 10 amateur Grand Slam titles and 2 professional Grand Slam titles; was

the first great player to play serve-volley on all serves; beat Gonzales badly in the 1949-1950 tour; was for 5 years the World No. 1 player

Pancho Segura - winner of 3 professional Grand Slam titles, including 2 victories over Gonzales, and 7 times a finalist; was for 1 year the World No. 1 player; Kramer called Segura's two-handed forehand "the single best shot ever produced in tennis."

Frank Sedgman - won 22 amateur Grand Slam titles, 3 professional Grand Slam titles and 4 times a finalist; winner of 3 consecutive Davis Cups

Pancho Gonzales - winner of 4 amateur Grand Slam titles, 12 professional Grand Slam titles and 6 times a finalist; world #1 amateur in 1949; was still world #6 player in 1969 and #9 American in 1972 at 44; was for 8 consecutive years the World No. 1 player, an unequalled 9 times overall

Ken Rosewall - won 18 Grand Slam titles, first 11 as an amateur, then 7 in the Open era, plus another 18 professional Grand Slam titles and was 5 times a finalist; winner of 3 consecutive Davis Cups; was for 2 years the World No. 1 player

Lew Hoad - won 11 amateur Grand Slam titles and 7 times a finalist in the professional Grand Slam; Gonzales said of him: "I think his game was the best game ever. Better than mine."

Other fine players of the pre-Open era include Maurice McLoughlin, "Little Bill" Johnston, Vinnie Richards, Jack Crawford, Gottfried von Cramm, Ted Schroeder, Vic Seixas, and Tony Trabert.

Among women the top two pre-Open era players are considered to be Suzanne Lenglen and Helen Wills Moody. Maureen Connolly was the first female player to win a Grand Slam in 1953. Doris Hart was the first player to win all 12 possible singles, doubles and mixed doubles Grand Slam titles

Among the greatest male players of the Open era, with the number of career Grand Slam singles titles in parenthesis, are: Pete Sampras (14), Rod Laver (11), Björn Borg (11), Jimmy Connors (8), Ivan Lendl (8), Andre Agassi (8), John Newcombe (7), Roger Federer (7), John McEnroe (7), Mats Wilander (7), Boris Becker (6), Stefan Edberg (6), Jim Courier (4), Guillermo Vilas (4), Arthur Ashe (3), Gustavo Kuerten (3), Stan Smith (2), Lleyton Hewitt (2), Yevgeny Kafelnikov (2), Patrick Rafter (2), Marat Safin (2), and Rafael Nadal (2).

The greatest women players, again with the number of career Grand Slam singles titles in parenthesis for each, are: Margaret Smith Court (24), Steffi Graf (22), Chris Evert (18), Martina Navrátilová (18), Billie Jean King (12), Monica Seles (9), Serena Williams (7), Maria Bueno (7), Evonne Goolagong (7), Martina Hingis (5), Venus Williams (5), Justine Henin-Hardenne (5), Hana Mandlíková (4), Arantxa Sánchez Vicario (4), Lindsay Davenport (3), Jennifer Capriati (3), and Mary Pierce (2)

## **The Greatest Player of All Time**

Until the mid-1950s, Bill Tilden was generally considered the greatest player ever, his only rivals being Vines, Budge, and Kramer. For much of the 1950s and 1960s, many thought Gonzales had claimed that title. Since then, first Laver, then more recently Borg, McEnroe, and Sampras, were widely regarded by many of their contemporaries as the greatest ever. Roger Federer is now considered by many observers to have the most "complete" game in

modern tennis, with the potential to challenge the achievements of these past greats. Even among experts, however, no consensus exists as to who has been the greatest of all. Kramer, for instance, still believes that Budge was the best ever on a consistent basis, while Vines was the best at the top of his game. Segura opts for Gonzales, and Gonzales himself considered Hoad, at the height of his game, to be the best.

It frequently appears to be the case when trying to decide who is the best of all time that contemporaries over-value the worth of great players of their own time. Each time that a great new player such as Tilden, Vines, Budge, Kramer, or Gonzales came on the scene and dominated it for several years, many observers at that time would then declare him to be the best of all time. A clear example of this occurred in early 1986 when *Inside Tennis*, a magazine edited in Northern California, devoted parts of four issues to a lengthy article called "Tournament of the Century", an imaginary tournament to determine the greatest of all time. They asked 37 tennis notables such as Kramer, Budge, Perry, and Riggs and observers such as Bud Collins to list the 10 greatest players in order.[2] This was probably as prestigious and knowledgeable a group of tennis experts as has ever been assembled. Nevertheless, there appears to be a clear predilection for choosing their near-contemporaries as the best player ever.

Twenty-five players in all were named by the 37 experts in their lists of the 10 best. The magazine then ranked them in descending order by total number of points assigned. The top eight players in overall points, with their number of first-place votes, were: Rod Laver (9), John McEnroe (3), Don Budge (4), Jack Kramer (5), Bjorn Borg (6), Pancho Gonzales (1), Bill Tilden (6), and Lew Hoad (1). McEnroe was still an active player and Laver, Borg, and Gonzales had only recently retired. In the imaginary tournament Laver beat McEnroe in the finals in 5 sets.

Among the women, Lenglen and Wills Moody vie for the distinction of greatest of all time, along with several modern players: Court, Navratilova, Evert, Graf, and Seles.

## **The Great Doubles Players**

Doubles is no longer as important to spectator tennis as it was in the first half of the 20th Century, when its attraction, particularly in Davis Cup rounds, was nearly equal to that of singles. George Lott, who himself won 5 U.S. doubles titles as well as 2 at Wimbledon, wrote an article in the May, 1973, issue of *Tennis Magazine* in which he ranked the great doubles teams and the great players. The teams, in descending order, were:

John Newcombe and Tony Roche  
R. Norris Williams and Vinnie Richards  
Bill Talbert and Gardnar Mulloy  
Frank Sedgman and Ken McGregor  
Adrian Quist and John Bromwich  
Roy Emerson and Rod Laver  
Bill Tilden and Vinnie Richards  
Jacques Brugnon and Henri Cochet

Wilmer Allison and John Van Ryn  
Lew Hoad and Ken Rosewall

Other great teams would include George Lott and Les Stoefen, Bob Lutz and Stan Smith, John McEnroe and Peter Fleming, and The Woodies (Todd Woodbridge and Mark Woodforde).

Lott also wrote: "It is frequently said that a doubles team is as good as its weakest link... I believe a really great doubles player can solidify that weak link." His list of the greatest doubles players is:

John Bromwich, Jack Kramer, and Don Budge, tied for 1st  
Frank Sedgman, Adrian Quist, and Roy Emerson tied for 4th  
Vinnie Richards  
Jacques Brugnon  
Marty Riessen, Bill Talbert, and Gardnar Mulloy tied for 10th

## Notes

1. ^ USTA Midwest
2. ^ The 37 were: Vijay Amritraj, Arthur Ashe, Lennart Bergelin, Bjorn Borg's coach, Nick Bollettieri, Norm Brooks, Don Budge, Nick Carter, Bud Collins, Allison Danzig, Donald Dell, Cliff Drysdale, Allan Fox, John Gardiner, Dick Gould, Slew Hester, Bill Jacobsen, Alan King, Jack Kramer, Art Larsen, Rod Laver, Bob Lutz, Barry MacKay, Marty Mulligan. Yannick Noah, Manuel Orantes, Charlie Pasarell, Fred Perry, Whitney Reed, Bobby Riggs, Vic Seixas, Stan Smith, Bill Talbert, Eliot Teltscher, Ted Tinling, Tony Trabert, Dennis van der Meer, Erik van Dillen.

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# Cricket

*Cricket* is a team sport played between two teams of eleven players on each side. It is a bat-and-ball game played on a roughly elliptical grass field, in the centre of which is a flat strip of ground 22 yards (20.12 m) long, called a pitch. At each end of the pitch is a set of wooden stumps, called a wicket. A player from the fielding team (the bowler) propels a hard, fist-sized leather ball from one wicket towards the other, where a player from the opposing

team (the batsman) defends the wicket from the ball with a wooden cricket bat. Another batsman (the "non-striker") stands in an inactive role near the bowler's wicket.

Generally, the batsman attempts to strike the ball with the bat, and run to the other end, exchanging places with his partner, scoring a run. However, he can attempt to run without hitting the ball, and vice versa. While the batting team scores as many runs as it can, the bowling team returns the ball back to either wicket. If the ball strikes a wicket before the batsman nearer to that wicket has reached safety then the batsman is out, or "dismissed". The batsman can also be out by failing to stop the bowled ball from hitting the wicket, or if a fielder catches the ball before it touches the ground. Once the batsmen are not attempting to score any more runs, the ball is "dead" and is bowled again.

Once out, a batsman is replaced by the next batsman in the team. As there must always be two batsmen on the field, the team's innings ends when ten batsmen are out, and the teams exchange roles. The number of innings, and possible restrictions on the number of balls in each, depend on the type of game played. At the end of the match - of which there are several definitions - the team that has scored more runs wins. In first-class cricket, a draw can result if the team to bat last fails to match the required total before a time limit is reached. This can add interest to one-sided games by giving the team in the worse position an incentive to play for a draw. This is distinct from a tie, which results if scores are level at the completion of both teams' innings.

Cricket has been an established team sport for several centuries. It originated in its modern form in England and is popular mainly in the present and former members of the Commonwealth. In some countries in South Asia, including India, Pakistan, Bangladesh, and Sri Lanka, cricket is by far the most popular sport. Cricket is also a major sport in England and Wales, Australia, New Zealand, South Africa, Zimbabwe and the English-speaking countries of the Caribbean, which are collectively known in cricketing parlance as the West Indies. There are also well established amateur club competitions in countries as diverse as the Netherlands, Kenya, Nepal, and Argentina (see also: International Cricket Council).

The length of the game — a match can last six or more hours a day for up to five days in one form of the game — the numerous intervals for lunch and tea, and the rich terminology are notable aspects that can often confuse those not familiar with the sport. For its fans, the sport and the intense rivalries between top cricketing nations provide passionate entertainment and outstanding sporting achievements. It has even occasionally given rise to diplomatic outrage, the most notorious being the Bodyline series played between England and Australia in the early 1930s, or the 1981 underarm bowling incident involving Australia and New Zealand.

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## Objective and results

Cricket is a bat and ball sport. The objective of the game is to score more runs than the opposing team. A match is divided into innings during which one team bats and one team fields. The word "innings" is both singular and plural in cricket usage.

If the team batting last is dismissed while their total score is *n* runs less than that of their opponents, they are said to have lost by *n* runs. If, in a two-innings match, one team is dismissed twice with a combined first- and second-innings score less than their opponents' first-innings score, then the winning team has no requirement to bat again and they are said to have won by an innings and *n* runs, where *n* is the difference in score between the teams. If the team batting last is dismissed with the scores exactly equal then the match is a tie; a tie is a rare result, particularly in matches of two innings a side. If the team batting last reaches their target, they are said to have won by *n* wickets, where *n* is the number of wickets the opposition still needed to take in order to dismiss them. If the time allotted for the match finishes before either side can win, then the game is a draw.

If the match has only a single innings per side then a maximum number of deliveries for each innings is often imposed. In this case the side scoring more runs wins regardless of the number of wickets lost, so that a draw cannot occur. If this kind of match is temporarily interrupted by bad weather, then a complex mathematical formula known as the Duckworth-Lewis method is often used to recalculate a new target score. A one-day match can be declared a "No-Result" if fewer than a previously agreed number of overs have been bowled by either team. This can occur if an interruption makes a resumption of play impossible, for example an extended period of bad weather.

## Laws of cricket



The game is played in accordance with 42 laws of cricket, which have been developed by the Marylebone Cricket Club in discussion with the main cricketing nations. Teams may agree to alter some of the rules for particular games. Other rules supplement the main laws and change them to deal with different circumstances. In particular, there are a number of modifications to the playing structure and fielding position rules that apply to one innings games that are restricted to a set number of fair deliveries.

## **Players and officials**

### **Players**

A team consists of eleven players. Depending on his primary skills, a player may be classified as a specialist batsman or bowler. A balanced team usually has five or six specialist batsmen and four or five specialist bowlers. Teams nearly always include a specialist wicket-keeper because of the importance of this fielding position.

A player who excels in both batting and bowling is known as an all-rounder. One who excels as a batsman and wicket-keeper is known as a wicket-keeper/batsman, sometimes regarded as a type of all-rounder. True all-rounders are rare and valued.

### **Umpires**

Two on-field umpires preside over a match. One umpire will stand behind the wicket at the end from which the ball is bowled, and adjudicate on most decisions. The other will stand near the fielding position called square leg, which offers a side view of the batsman, and assist on decisions for which he has a better view. In some professional matches, they may refer a decision to an off-field 'third' umpire, who has the assistance of television replays. In international matches an off-field match referee ensures that play is within the laws of cricket and the spirit of the game.

### **Scorers**

Two scorers are appointed, and most often one scorer is provided by each team. The laws of cricket specify that the official scorers are to record all runs scored, wickets taken and (where appropriate) overs bowled. They are to acknowledge signals from the umpire, and to check the accuracy of the score regularly both with each other and, at playing intervals, with the umpires. In practice scorers also keep track of other matters, such as bowlers' analyses, the rate at which the teams bowl their overs, and team statistics such as averages

and records. In international and national cricket competitions the media often require notification of records and statistics, so unofficial scorers often keep tally for the broadcast commentators and newspaper journalists. The official scorers occasionally make mistakes, but unlike umpires' mistakes these can be corrected after the event.

## **The playing field**

A standard cricket ground, showing the cricket pitch (brown), close-infield (light green) within 15 yards (13.7 m) of the striking batsman, infield (medium green) inside the white 30 yard (27.4 m) circle, and outfield (dark green), with sight screens beyond the boundary at either end.

A wicket consists of three stumps, upright wooden stakes that are hammered into the ground, topped with two wooden crosspieces, known as the bails.

The standard fielding positions in cricket for a right-handed batsman; the positions are reversed for a left-handed batsman.

A perspective view of the cricket pitch from the bowler's end. The bowler runs in past one side of the wicket at the bowler's end, either 'over' the wicket or 'round' the wicket.

The cricket field consists of a large circular or oval-shaped grassy ground. There are no fixed dimensions for the field but its diameter usually varies between 450 feet (137 m) to 500 feet (150 m). On most grounds, a rope demarcates the perimeter of the field and is known as the boundary.

### **The pitch**

Most of the action takes place in the centre of this ground, on a rectangular clay strip usually with short grass called the *pitch*. The pitch measures 10 × 66 feet (3.05 × 20.12 m).

At each end of the pitch three upright wooden stakes, called the stumps, are hammered into the ground. Two wooden crosspieces, known as the bails, sit in grooves atop the stumps, linking each to its neighbour. Each set of three stumps and two bails is collectively known as a wicket. One end of the pitch is designated the batting end where the batsman stands and the other is designated the bowling end where the bowler runs in to bowl. The area of the field on the side of the line joining the wickets where the batsman holds his bat (the right-hand side for a right-handed batsman, the left for a left-hander) is known as the off side, the other as the leg side or on side.

Lines drawn or painted on the pitch are known as *creases*. Creases are used to adjudicate the dismissals of batsmen and to determine whether a delivery is fair.

### **Parts of the field**

For a one-innings match played over a set number of fair deliveries, there are two additional field markings. A painted oval is made by drawing a semicircle of 30 yards (27.4 m) radius from the centre of each wicket with respect to the breadth of the pitch and joining them with lines parallel, 30 yards (27.4 m) to the length of the pitch. This line, commonly known as the circle, divides the field into an infield and outfield. Two circles of radius 15 yards (13.7 m), centred on each wicket and often marked by dots, define the close-infield. The infield, outfield, and the close-infield are used to enforce fielding restrictions.

### **Placements of players**

The team batting always has two batsmen on the field. One batsman, known as the striker, faces and plays the balls bowled by the bowler. His partner stands at the bowling end and is known as the non-striker.

The fielding team has all eleven of its players on the ground, and at any particular time, one of these will be the bowler. The player designated as bowler must change after every over. The wicket-keeper, who generally acts in that role for the whole match, stands or crouches behind the wicket at the batting end. The captain of the fielding team spreads his remaining nine players — the fielders — around the ground to cover most of the area. Their placement may vary dramatically depending on strategy. Each position on the field has a unique label.

### **Match structure**

#### **The toss**

On the day of the match, the captains inspect the pitch to determine the type of bowlers whose bowling would be suited for the offered pitch surface and select their eleven players. The two opposing captains then toss a coin. The captain winning the toss may choose either to bat or bowl first.

#### **Overs**

Each innings is divided into overs, each consisting of six consecutive legal deliveries bowled by the same bowler. After completing an over, the bowler must take up a fielding position and let another player take over the bowling.

After every over, the batting and bowling ends are swapped, and the field positions are adjusted. The umpires swap so the umpire at the bowler's end moves to square leg, and the umpire at square leg moves to the new bowler's end.

#### **End of an innings**

An innings is completed if:

1. Ten out of eleven batsmen are 'out' (dismissed).
2. A team chasing a given target number of runs to win manages to do so.
3. The predetermined number of overs are bowled (in a one-day match only, usually 50 overs).
4. A captain declares his team's innings closed (this does not apply to one-day limited over matches).

#### **Playing time**

Typically, two innings matches are played over three to five days with at least six hours of cricket being played each day. One innings matches are usually played over one day for six hours or more. There are formal intervals on each day for lunch and tea, and shorter breaks for drinks, where necessary. There is also a short interval between innings.

The game is only played in dry weather. Additionally, as in professional cricket it is common for balls to be bowled at over 90 mph (144 km/h), the game needs to be played in daylight that is good enough for a batsman to be able to see the ball. Play is therefore halted during rain (but not usually drizzle) and when there is bad light. Some one-day games are

now played under floodlights, but, apart from a few experimental games in Australia, floodlights are not used in longer games. Professional cricket is usually played outdoors. These requirements mean that in England, Australia, New Zealand, South Africa and Zimbabwe the game is usually played in the summer. In the West Indies, India, Pakistan, Sri Lanka and Bangladesh games are played in the winter. In these countries the hurricane and cyclone season coincides with their summers.

## **Batting and scoring runs**

### **Batting**

*Batsmen* strike the ball from the batting crease, with the flat surface of a wooden bat. If the batsman hits the ball with his bat, it is called a shot (or stroke). If the ball brushes the side of the bat it is called an edge or snick. Shots are named according to the style of swing and the direction aimed. As part of the team's strategy, he may bat defensively, blocking the ball downwards, or aggressively, hitting the ball hard to empty spaces in order to score runs. There is no requirement to run if the ball is struck.

Batsmen come in to bat in a batting order, decided by the team captain. The first two positions, the "openers", face the most hostile bowling, from fast bowlers at their freshest and with a new ball. After that, the team typically bats in descending order of batting skill, the first five or six batsmen usually being the best in the team. Then follow the all-rounders - bowlers or wicket-keepers who can bat decently - and finally the pure bowlers who rarely score well. This order may be changed at any time during the course of the game for strategic reasons.

### **Run scoring**

To score a *run*, a striker must hit the ball and run to the opposite end of the pitch, while his non-striking partner runs to his end. Both runners must touch the ground behind the popping crease with either his bat or his body to register a run. If the striker hits the ball well enough, the batsmen may double back to score two or more runs. This is known as running between wickets. However, no rule exists whereby the batsman has to run upon striking the ball. If the batsmen score an odd number of runs, then they will have swapped ends and their roles as striker and non-striker will be reversed for the next ball, unless the most recent ball marks the end of an over.

If a fielder knocks the bails off the stumps with the ball while no batsman is grounded behind the nearest popping crease, the nearest batsman is run out. If the ball goes over the boundary, then four runs are scored, or six if the ball has not bounced.

### **Extras**

Every run scored by the batsmen contributes to the team's total. A team's total also includes a number of runs which are uncredited to any batsmen. These runs are known as *extras*, apart from in Australia where they are also called sundries. Extras consist of byes, leg byes, no balls, wides and penalty runs. The former two are runs that can be scored if the batsman misses making contact with bat and ball, and the latter two are types of fouls committed by the bowler. For serious infractions such as tampering with the ball, deliberate time-wasting, and damaging the pitch, the umpires may award penalty extras to the

opposition; in each case five runs. Five penalty runs are also awarded if a fielder uses anything other than his body to field the ball, or if the ball hits a protective helmet left on the field by the fielding team. A team need not be batting in order to receive penalty extras.

## **Bowling and dismissals**

### **Bowling**

A *bowler* delivers the ball toward the batsmen, using what is known as a bowling action: the elbow may be held at any angle and may bend further, but may not straighten out during the action. If the elbow straightens, it is an illegal throw and the delivery is called a no-ball. Under new cricketing law, after consultation with health experts, the bowler is allowed to straighten his arm 15 degrees or less, if the bowler straightens his or her arm more than 15 degrees it is called a "no ball". This new law came in to prevent injury to bowlers. Usually, the bowler pitches the ball so that it bounces before reaching the batsman. Some part of the bowler's front foot in the delivery stride (that is, the stride when the ball is released) must be behind the popping crease to avoid a no-ball (although the bowler's front foot does not have to be grounded). The ball must also be delivered so it is within the batsman's reach, otherwise it is termed a wide. A wide cannot be called if the batsman hits the ball. A wide or no-ball results in an extra run being added to the batting team's score, and an extra ball being bowled in the over.

The bowler's primary goal is to take wickets; that is, to get a batsman out or dismissed. If a bowler can dismiss the more accomplished batsmen on the opposing team he reduces the opportunity for them to score, as it exposes the less skilful batsmen. Their next task is to limit the numbers of runs scored per over they bowl. This is known as the Economy rate. If a bowler gets a batsman out, he is credited for this achievement. There are two main kinds of bowlers: pace bowlers and spin bowlers.

### **Dismissal of a batsman**

A batsman is allowed to bat as long as he does not get out (also known as being dismissed). There are ten ways of being dismissed, some of which are credited as wickets to the bowler, some of which are not credited to any player. If the batsman is dismissed, another player from the batting team replaces him until ten batsmen are out and the innings is over.

Many modes of dismissal require the wicket to be "put down". The wicket is put down if a bail is dislodged from the top of the stumps or a stump is struck out of the ground either by the ball, or by a fielder using his hand which is holding the ball. Of the following ten modes of dismissal, the first six are common, while the last four are technicalities which rarely occur. Briefly, the ten modes are:

- *Caught* — When a fielder catches the ball before the ball bounces and after the batsman has struck it with the bat or it has come into contact with the batsman's glove while it is in contact with the bat handle. The bowler and catcher are both credited.
- *Bowled* — When a delivered ball hits the stumps at the batsman's end, and dislodges one or both of the bails. This happens regardless of whether the

batsman has edged the ball onto the stumps or not. The bowler is credited with the dismissal.

- *Leg before wicket (LBW)* — When a delivered ball misses the bat and strikes the batsman's leg or pad, and the umpire judges that the ball would otherwise have struck the stumps. The laws of cricket stipulate certain exceptions in favour of the batsman; for instance, a batsman should not be given out LBW if the place where the ball bounced on the pitch is to the leg-side of the area strictly between the two wickets. The bowler is credited with the dismissal.

- *Run out* — When a fielder, bowler or wicket-keeper removes one or both of the bails with the ball by hitting the stumps whilst a batsman is still running between the two ends. The ball can either hit the stumps directly or the fielder's hand with the ball inside it can be used to dislodge the bails. Such a dismissal is not officially credited to any player, although the identities of the fielder or fielders involved is often noted in brackets on the scorecard.

- *Stumped* — When the batsman leaves his crease in playing a delivery, voluntarily or involuntarily, but the ball goes to the wicket-keeper who uses it to remove one or both of the bails through hitting the bail(s) or the wicket before the batsman has remade his ground. The bowler and wicket-keeper are both credited. This generally requires the keeper to be standing within arm's length of the wicket, which is done mainly to spin bowling.

- *Hit wicket* — When the batsman accidentally knocks the stumps with either the body or the bat, causing one or both of the bails to be dislodged, either in playing a shot or in taking off for the first run. The bowler is credited with the dismissal.

- *Handled the ball* — When the batsman deliberately handles the ball without the permission of the fielding team. No player is credited with the dismissal.

- *Hit the ball twice* — When the batsman deliberately strikes the ball a second time, except for the sole purpose of guarding his wicket. No player is credited with the dismissal.

- *Obstructing the field* — When a batsman deliberately hinders a fielder from attempting to field the ball. No player is credited with the dismissal.

- *Timed out* — When a new batsman takes more than three minutes to take his position in the field to replace a dismissed batsman. (If the delay is protracted, the umpires may cause the match to be forfeited.) No player is credited with the dismissal.

Additionally, a batsman may leave the field without being dismissed. For instance, if he is injured or taken ill, this is known as retired hurt or retired ill. The batsman is not out; he may return to bat later in the same innings if sufficiently recovered. Also, an unimpaired batsman may retire, in which case he is treated as being dismissed *retired out*; no player is credited with the dismissal.

An individual cannot be out — 'bowled', 'caught', 'leg before wicket', 'stumped', or 'hit wicket' off a no ball. He cannot be out — 'bowled', 'caught', 'leg before wicket', or 'hit the ball twice' off a wide.

Some of these modes of dismissal can take place without the bowler bowling a delivery. The batsman who is not on strike may be run out by the bowler if he leaves his crease before the bowler bowls, and a batsman can be out obstructing the field or retired out at any time. Timed out by its nature is a dismissal without a delivery. With all other modes of dismissal, only one batsman can be dismissed per ball bowled. Obstructing the field, Handled the ball, Timed Out and Hit the ball twice dismissals are extremely rare.

## **Fielding and wicket-keeping**

*Fielders* assist the bowlers to prevent batsmen from scoring too many runs. They do this in two ways: by taking catches to dismiss a batsman, and by intercepting hit balls and returning them to the pitch to attempt run-outs to restrict the scoring of runs.

The *wicket-keeper* is a specialist fielder who stands behind the batsman's wicket throughout the game. His primary job is to gather deliveries that the batsman fails to hit, to prevent them running into the outfield, which would enable batsmen to score byes. To this end, he wears special gloves (he is the only fielder allowed to do so) and pads to cover his lower legs. Due to his position directly behind the striker, the wicket-keeper has a good chance of getting a batsman out caught off a fine edge from the bat; thicker edges are typically handled by the "slips" fieldsmen. The wicket-keeper is also the only person who can get a batsman out stumped.

## **Other roles**

### **Captain**

The *captain's* acumen in deciding the strategy is crucial to the team's success. The captain makes a number of important decisions, including setting field positions, alternating the bowlers and taking the toss. The captain's job on the team is very important but can be rather stressful at times. Much blame is placed on a captain when his team loses. However, it is considered an honour to be in such a privileged position and much praise is given to the captain when his team wins. The burden of the captain's duties can interfere with his quality of play considerably, slightly, or not at all, depending on how well he deals with the stress of his position.

### **A runner**

In the event of a batsman being fit to bat but too injured to run, he may ask the umpire and the fielding captain for a *runner*. The runner chosen must, if possible, be a player who has already been given out. After a batsman hits the ball, the runner's only task is to run between the wickets in place of the injured batsman.

### **Substitutes**

In all forms of cricket, if a player gets injured or becomes ill during a match, a substitute is allowed to field instead of him; though he cannot bowl, bat, or act as a captain or wicket-keeper. Here the substitute is a temporary role and leaves the field once the injured player is fit to return.

For 9 months from July 2005, the ICC trialled the concept of a Super Sub in one-day international (ODI) cricket and some other limited overs competitions. A single full substitution was allowed, with the replaced player not allowed to return to the game. It was discontinued from March 2006.

## History

A basic form of the sport can be traced back to the 13th century, but it may have existed even earlier than that. The game seems to have originated among shepherds and farm workers in the Weald between Kent and Sussex. Written evidence exists of a sport known as *creag* being played by Prince Edward, the son of Edward I (Longshanks), at Newenden, Kent in 1300.

In 1598, a court case referred to a sport called *Creckett* being played at the Royal Grammar School, Guildford around 1550. The Oxford English Dictionary gives this as the first recorded instance of *cricket* in the English language.

A number of words are thought to be possible sources for the term **cricket**. The name may derive from a term for the cricket bat: old French *criquet* (meaning a kind of club) or Flemish *krick(e)* (meaning a stick) or in Old English *crycc* (meaning a crutch or staff). (The latter is problematic, since Old English 'cc' was palatal in pronunciation in the south and the west midlands, roughly *ch*, which is how *crycc* leads to *crych* and thence *crutch*; the 'k' sound would be possible in the north, however.) Alternatively, the French *criquet* apparently derives from the Flemish word *krickstoel*, which is a long low stool on which one kneels in church and which resembles the long low wicket with two stumps used in early cricket.

During the 17th century, numerous references indicate the growth of cricket in the south-east of England. By the end of the century, it had become an organised activity being played for high stakes and it is possible that the first professionals appeared about that time. We know that a great cricket match with eleven players a side was played for high stakes in Sussex in 1697 and this is the earliest reference we have to *cricket* in terms of such importance.

The game underwent major development in the 18th Century and had become the national sport of England by the end of the century. Betting played a major part in that development and rich patrons began forming their own "select XIs". Cricket was prominent in London as early as 1707 and large crowds flocked to matches on the Artillery Ground in Finsbury. The Hambledon Club was founded sometime before 1750 and started playing first-class matches in 1756. For the next 30 years until the formation of MCC and the opening of Lord's in 1787, Hambledon was the game's greatest club and its focal point. MCC quickly became the sport's premier club and the custodian of the Laws of Cricket.

The 19th Century saw underarm replaced by first roundarm and then overarm bowling. Both developments were accompanied by major controversy. County clubs appeared from 1836 and ultimately formed a County Championship. In 1859, a team of England players went on the first overseas tour (to North America) and 18 years later another England team took part in the first-ever Test Match at the Melbourne Cricket Ground against Australia.

Cricket appeared at one Olympic Games, at Paris in 1900. Olympic cricket lasted only two days and Great Britain is the current Olympic champion.



Cricket entered an epochal era in 1963, when English counties modified the rules to provide a variant match form that produced an expedited result: games with a restricted number of overs per side. This gained widespread popularity and resulted in the birth of one-day international (ODI) matches in 1971. The governing International Cricket Council quickly adopted the new form and held the first ODI Cricket World Cup in 1975. Since then, ODI matches have gained mass spectatorship, at the expense of the longer form of the game and to the consternation of fans who prefer the longer form of the game. As of the early 2000s, however, the longer form of cricket is experiencing a growing resurgence in popularity.

## **Forms of cricket**

There are many different types and grades of cricket; those played professionally at an international level are Test cricket, one-day cricket and Twenty20.

### **Test cricket**

Test cricket is a form of international cricket started in 1877 during the 1876/77 English cricket team's tour of Australia. The first Test match began on 15 March 1877 and had a timeless format with four balls per over. It ended on 19 March 1877 with Australia winning by 45 runs.

The Test Cricket Series between England and Australia is called The Ashes, with the trophy being a tiny fragile urn, reputed to hold the ashes of a bail or cricket ball used during the second Test series between the two countries. The tiny urn was presented to the English Cricket Captain, Ivo Bligh, by a group of Melbourne women, following the Test Series win by the England Cricket Team, during the England Cricket Team's Tour of Australia in 1882/83.

Since then, over 1,700 Test matches have been played and the number of Test playing nations has increased to ten with Bangladesh, the most recent nation elevated to Test status, making its debut in 2000. Test matches are two innings per side, usually played over five consecutive days. Tests that are not finished within the allotted time are drawn.

### **One-day cricket**

*Limited overs* matches, also known as *one day cricket* or *instant cricket*, were introduced in the English domestic season of 1963 due to the growing demands for a shorter and more dramatic form of cricket to stem the decline in attendances. One-day, single-innings, matches often took place before this, but the innovation was the limiting of each side's innings to an agreed number of overs (nowadays usually 50). The idea was taken up in the international arena in 1971, during England's tour of Australia, when a match was played on the scheduled fifth day of the rained-off third Test. The one-day game has since become a crowd-pleaser and TV-audience-generator across the globe, hastened in part by the success of the inaugural

World Cup in 1975. The abbreviations *ODI* (One Day International) or sometimes *LOI* (Limited Overs International) are used for international matches of this type. Important one-day matches, international and domestic, often have two days set aside, the second day being a "reserve" day to allow more chance of the game being completed if a result is not possible on the first day (for instance if play is prevented or interrupted by rain). Innovations have included the introduction of coloured clothing, distinct tournaments, and "day-night" matches (where play extends into the night under floodlights); together with frequent nail-biting finishes and the impossibility of either side opting to play for a draw, these have seen ODI cricket gain many supporters.

## **Twenty20 Cricket**

*Twenty20 Cricket* was first played in English domestic cricket in 2003 to popularise first-class cricket and attract more players to the game. Now it has spread to many other countries. A "Twenty20 Game" consists 20 overs per each side, a free-hit after a no-ball is bowled, short boundaries, batting-friendly pitches, and other rules designed to attract crowds. The first men's Twenty20 international was between Australia and New Zealand in 2005, the first women's Twenty20 international having been between England and New Zealand in 2004.

## **First-class matches**

A *first-class* match is generally defined as a high-level international or domestic match that takes place over at least three days on natural (as opposed to artificial) turf. First-class games are two innings per side. Like Test matches, if the game is not completed over the allotted time then it is drawn. Games where the teams have only one innings each are not first-class (including one-day internationals).

A two-innings match of at least three days duration is granted first-class status only if both teams have first-class status. For example, Test matches, other games between two Test nations, games between two domestic teams deemed first-class in countries holding full membership of the ICC, and games between a Test nation's national side (or a team drawn from a national touring squad) and a first-class domestic team from a Test nation, are usually deemed to be first class. Matches between Kenya, one of the leading associate members of the ICC, and another team adjudged first-class are usually granted first-class status, but domestic matches in Kenya are not.

Among cricket statisticians, first class cricket is variously deemed to have started in 1660, 1772, 1801, 1815 or 1864. This ongoing controversy is described in the main article.

## **Other forms of cricket**

At all levels, the rules of cricket are often modified. At international or first-class levels this is usually in order to make the game more commercially attractive. More or less formal domestic club cricket matches are usually played over one to two days, either two innings per side or one innings per side with limited overs. At lower levels the rules are often changed simply to make the game playable with limited resources, or to render it more convenient and enjoyable for the participants. Variants of the sport are played in areas as diverse as sandy beaches and ice floes. Families and teenagers play backyard cricket in suburban yards or driveways, and the teeming cities of India and Pakistan play host to countless games of 'Gully Cricket' or 'Tapeball' on their streets. Tennis balls and homemade bats are often used, and a variety of objects may serve as wickets. Sometimes the rules are also improvised: for instance it is sometimes agreed that fielders can catch the ball with one hand after one bounce and claim a wicket, or if only a few people are available then everyone may field while the players take it in turns to bat.

In Kwik cricket, the bowler does not have to wait for the batsman to be ready before a delivery, leading to a faster, more exhausting game designed to appeal to children, which is often used in English schools' PE lessons. Indoor cricket is played in a netted, indoor arena.

## **International structure**

The International Cricket Council (ICC) is the international governing body for cricket. It is headquartered in Dubai and includes representatives of each of the ten Test-playing nations, as well as an elected panel representing non-Test-playing nations.

Each nation has a national cricket board which regulates cricket matches played in their country. The cricket board also selects the national squad and organises home and away tours for the national team.

Nations playing cricket are separated into three tiers depending on the level of cricket infrastructure in that country. At the highest level are the Test-playing nations. They qualify automatically for the quadrennial World Cup matches. A rung lower are the Associate Member nations. The lowermost rung consists of the Affiliate Member nations.

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# **Baseball**

*Baseball* is a team sport popular in North America, Latin America, the Caribbean and East Asia. The modern game was developed in the United States from early bat-and-ball games played in Britain, and it has become the national sport of the United States. It is a ball game in which a pitcher throws (pitches) a hard, fist-sized ball past the hitting area of a batter. The batter attempts to hit the baseball with a tapered, smooth, cylindrical bat that in professional

baseball must be made out of wood. A team scores only when batting, by advancing counter-clockwise past a series of four markers called bases arranged at the corners of a diamond. Each base is 90 feet from the previous base. Baseball is sometimes called hardball to differentiate it from similar games such as softball.

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## History

### Origins of baseball

The distinct evolution of baseball from among the various bat-and-ball games is difficult to pin down. However, it is mainly agreed that modern baseball is an American development from earlier British games, such as rounders, with possible influences from cricket.

The earliest known mention of the sport is in a 1744 British publication, *A Little Pretty Pocket-Book* by John Newbery. It contains a wood-cut illustration of boys playing "base-ball" (showing a similar set-up to the modern game, yet significantly different) and a rhymed description of the sport.

Alexander Cartwright had a hand in compiling and publishing an early list of rules in 1845 (the so-called Knickerbocker Rules) to meet the demands of the already popular sport, and today's rules of baseball have evolved from them.

## **History of baseball in the United States**

As far back as the 1870s, American newspapers were referring to baseball as "The National Pastime" or "The National Game." An award-winning account of the origins of the game is David Block's *Baseball Before We Knew It: A Search for the Roots of the Game* (University of Nebraska Press, 2005). The publisher's description of the book notes that "David Block looks into the early history of the game and of the 150-year-old debate about its beginnings. He tackles one stubborn misconception after another, debunking the enduring belief that baseball descended from the English game of rounders and revealing a surprising new explanation for the most notorious myth of all—the Abner Doubleday-Cooperstown story." [1] In short, the debate on the game's origins may never be settled to everyone's satisfaction.

Another early mention of the game can be found in an 1886 edition of *Sporting Life* magazine, in a letter from Dr. Matthew Harris of Boston, Massachusetts, formerly of St. Marys, Ontario, who details a base ball game played in Beachville, Ontario, on June 4, 1838 - Militia Muster Day.

Professional baseball began in the United States around 1865, and the National League was founded in 1876 as the first true major league, quickly producing famous players such as Cap Anson. Several other major leagues formed and failed, but the American League, established in 1901 as a major league and originating from the minor Western League (1893), did succeed. While the two leagues were rivals who actively fought for the best players, often disregarding one another's contracts and engaging in bitter legal disputes, a modicum of peace was established in 1903, and they began playing a World Series that year. The next year however, John McGraw, manager of the National League Champion New York Giants refused to participate in the World Series against the American League champion Boston Pilgrims, as McGraw refused to recognize the American League. The following year, McGraw relented and the Giants played the Philadelphia Athletics in the World Series.

Compared to modern times, games in the early part of the 20th century were lower scoring and pitchers were more successful. The "inside game", whose nature was to "scratch for runs", was played rather more violently and aggressively than it is today. Ty Cobb said of his era especially, "Baseball is something like a war!" This period, which has since become known as the "dead-ball era", ended in the 1920s with several rule changes that gave

advantages to hitters and the rise of the legendary baseball player Babe Ruth, who showed the world what power hitting could produce and thus changed the nature of the game.

During the first half of the 20th century, a "gentlemen's agreement" in the form of the baseball color line effectively barred African-American players from the major leagues (though not Native Americans, oddly enough), resulting in the formation of several Negro Leagues. Finally in 1947, Major League Baseball's color barrier was broken when Jackie Robinson was signed by the National League's Brooklyn Dodgers. Although it was not instantaneous, baseball has since become fully integrated.

The middle of the century led major league baseball to the West of the United States and also became a time when pitchers dominated. Scoring became so low in the American League, due to pitching dominance, that the designated hitter was introduced; this rule now constitutes the primary difference between the two leagues.

Despite the popularity of baseball, and the attendant high salaries relative to those of average Americans, the players have become unsatisfied from time to time, as they believed the owners had too much control. Various job actions have occurred throughout the game's history. Players on specific teams occasionally attempted strikes, but usually came back when their jobs were sufficiently threatened. The throwing of the 1919 World Series, the "Black Sox scandal", was in some sense a "strike" or at least a rebellion by the ballplayers against a perceived stingy owner. But the strict rules of baseball contracts tended to keep the players "in line" in general.

This began to change in the 1960s when former United Steelworkers president Marvin Miller became the Baseball Players Union president. The union became much stronger than it had been previously, especially when the reserve clause was effectively nullified in the mid-1970s. A series of strikes and lockouts began in baseball, affecting portions of the 1972 and 1981 seasons and culminating in the infamous 1994 baseball strike that led to the cancellation of the World Series and carried over into 1995 before it was finally settled.

The players typically got what they demanded, but the popularity of baseball diminished greatly as a result of the players' actions, and fans were slow to return. Cal Ripken's record-breaking 2131st consecutive game in 1995 was a feel-good moment that helped boost interest in the sport. The great home run race of 1998 between Mark McGwire and Sammy Sosa really turned things around, captivating fans all summer. As with other times when adversity threatened the game, positive on-field events triggered a renewed surge in baseball's popularity in America.

Professional baseball leagues began to form in countries outside of America in the 1920s and 1930s, including the Netherlands (formed in 1922), Japan (1936), and Australia (1934). Today, Venezuela (1945), the whole of Europe (1953), Italy (1948), Korea (1982), Taiwan (1990), and mainland China (2003) all have professional leagues as well (however, the leagues in Australia, Italy and the United Kingdom have generally had a niche appeal compared to the leagues in Asia and Venezuela and only now is the sport beginning to broaden in scope in those nations, most notably in Australia, who won a surprise silver medal in the 2004 Olympic Games). Israel is trying to form a professional baseball league with the help of American emigres. Canada has a franchise in Major League Baseball as well. Competition between national teams, such as in the World Cup of Baseball and the Olympic baseball tournament, has been administered by the International Baseball Federation since its formation in 1938. As of 2004, this organization has 112 member countries. The new

World Baseball Classic, first held in March 2006, seems likely to have a much higher profile than previous tournaments, owing to the participation for the first time of a significant number of players from the United States Major Leagues.

The 117th meeting of the International Olympic Committee, held in Singapore in July 2005, voted not to hold baseball and softball tournaments at the 2012 Summer Olympic Games, but they will remain Olympic sports during the 2008 Summer Olympic Games and will be put to vote again for each succeeding Summer Olympics. The elimination of baseball and softball from the 2012 Olympic program enabled the IOC to consider adding two other sports to the program instead, but no other sport received a majority of votes favoring its inclusion. While baseball's lack of major appeal in a significant portion of the world was a factor, a more important factor was the unwillingness of Major League Baseball to have a break during the Games so that its players could participate, something that the National Hockey League now does during the Winter Olympic Games. Because of the seasonal nature of baseball and the high priority baseball fans place on the integrity of major-league statistics from one season to the next, however, it would be more difficult to accommodate such a break in MLB.

## **Gameplay**

A simplified version of the rules of baseball is at simplified baseball rules.

## **General structure**

Baseball is played between two teams of nine players each on a baseball field, under the authority of one or more officials, called umpires. There are usually four umpires in major league games; up to six (and as few as one) may officiate depending on the league and the importance of the game. There are four bases. Numbered counter-clockwise, first, second and third bases are cushions (sometimes informally referred to as bags) shaped as 15 in (38 cm) squares which are raised a short distance above the ground; together with home plate, the fourth "base," they form a square with sides of 90 ft (27.4 m) called the diamond. Home base (plate) is a pentagonal rubber slab known as simply home. The field is divided into two main sections:

- The infield, containing the four bases, is for defensive and offensive purposes bounded by the foul lines and the grass line (see figure). However, the infield technically consists of only the area within and including the bases and foul lines.
- The outfield is the grassed area beyond the infield grass line (for general purposes; see above under infield), between the foul lines, and bounded by a wall or fence. Again, there is a technical difference; properly speaking, the outfield consists of all fair ground beyond the square of the infield and its bases. The area between the foul lines, including the foul lines (the foul lines are in fair territory), is fair territory, and the area outside the foul lines is foul territory.

The game is played in nine innings (although it can be played with fewer, such as it is in little league) in which each team gets one turn to bat and try to score runs while the other pitches and defends in the field. An inning is broken up into two halves in which the away team bats in the top (first) half, and the home team bats in the bottom (second) half. In baseball, the defense always has the ball — a fact that differentiates it from most other team sports. The teams switch every time the defending team gets three players of the batting team out. The winner is the team with the most runs after nine innings. If the home team is ahead after the top of the ninth, play does not continue into the bottom half. In the case of a tie, additional innings are played until one team comes out ahead at the end of an inning. If the home team takes the lead anytime during the bottom of the ninth or of any inning thereafter, play stops and the home team is declared the winner.

The basic contest is always between the pitcher for the fielding team, and a batter. The pitcher throws—pitches—the ball towards home plate, where the catcher for the fielding team waits (in a crouched stance) to receive it. Behind the catcher stands the home plate umpire. The batter stands in one of the batter's boxes and tries to hit the ball with a bat. The pitcher must keep one foot in contact with the top or front of the pitcher's rubber—a 24" x 6" (~ 61 cm x 15 cm) plate located atop the pitcher's mound—during the entire pitch, so he can only take one step backward and one forward in delivering the ball. The catcher's job is to receive any pitches that the batter does not swing at or swings at and misses and to "call" the game by a series of hand movements that signal to the pitcher what pitch to throw and where. If the pitcher disagrees with the call, he will "shake off" the catcher by shaking his head; he accepts the sign by nodding. The catcher's role becomes more crucial depending on how the game is going, and how the pitcher responds to a given situation. Each pitch begins a new play, which might consist of nothing more than the pitch itself.

Each half-inning, the goal of the defending team is to get three members of the other team out. A player who is out must leave the field and wait for his next turn at bat. There are many ways to get batters and baserunners out; some of the most common are catching a batted ball in the air, tag outs, force outs, and strikeouts. After the fielding team has put out three players from the opposing team, that half of the inning is over and the team in the field and the team at bat switch places; there is no upper limit to the number that may bat in rotation before three outs are recorded. Going through the entire order in an inning is referred to as "batting around". It is indicative of a high scoring inning. A complete inning consists of each opposing side having a turn (three outs) on offense.

The goal of the team at bat is to score more runs than the opposition; a player may do so only by batting, then becoming a base runner, touching all the bases in order (via one or more plays), and finally touching home plate. To that end, the goal of each batter is to enable baserunners to score or to become a baserunner himself. The batter attempts to hit the ball into fair territory—between the baselines—in such a way that the defending players cannot get them or the baserunners out. In general, the pitcher attempts to prevent this by pitching the ball in such a way that the batter cannot hit it cleanly or, ideally, at all.

A baserunner who successfully touches home plate after touching all previous bases in order scores a run. In an enclosed field, a fair ball hit over the fence on the fly is normally an automatic home run, which entitles the batter and all runners to touch all the bases and score. A home run hit with all bases occupied ('bases loaded') is called a grand slam.



## **Fielding team**

The squad in the field is the defensive team; they attempt to prevent the baserunners from scoring. There are nine defensive positions, however, only two of the positions have a mandatory location (pitcher and catcher), the locations of the other seven fielders is not specified by the rules, except that at the moment the pitch is delivered they must be positioned in fair territory and not in the space between the pitcher and the catcher. These fielders often shift their positioning in response to specific batters or game situations, and they may exchange positions with one another at any time. The nine positions most commonly used are: pitcher, catcher, first baseman, second baseman, third baseman, shortstop, left fielder, center fielder, and right fielder. Note that, in rare cases, teams may use dramatically differing schemes, such as switching an outfielder for an infielder. Scorekeepers label each position with a number starting with the pitcher (1), catcher (2), first baseman (3), second baseman (4), third baseman (5), shortstop (6), left fielder (7), center fielder (8), right fielder (9). This convention was established by Henry Chadwick. The reason the shortstop seems out of order has to do with the way fielders positioned themselves in the early years of the game.

## **The battery**

The battery is composed of the pitcher, who stands on the rubber of the mound, and the catcher, who squats behind home plate. These are the two fielders who always deal directly with the batter on every pitch, hence the term "battery", coined by Henry Chadwick and later reinforced by the implied comparison to artillery fire.

The pitcher's main role is to pitch the ball toward home plate with the goal of getting the batter out. Pitchers also play defense by fielding batted balls, covering bases (for a potential tag out or force out on an approaching runner), or backing up throws. The catcher's main role is to receive the pitch if the batter does not hit it. Together with the pitcher and coaches, the catcher plots game strategy by suggesting different pitches and by shifting the starting positions of the other fielders. Catchers are also responsible for defense in the area near home plate.

## **The infielders**

The four infielders are the first baseman, second baseman, shortstop, and third baseman. Originally the first, second and third basemen played very near their respective bases, and the shortstop generally played "in" (hence the term), covering the area between second, third, and the pitchers box, or wherever the game situation required. As the game evolved, the fielding positions changed to the now-familiar "umbrella", with the first and third baseman generally positioned a short distance toward second base from their bases, the second baseman to the right side of second base standing farther away from the base than any other infielder, and the shortstop playing to the left of second base, as seen from the batter's perspective, filling in the gaps.

The first baseman's job consists largely of making force plays at first base on ground balls hit to the other infielders. When an infielder picks up a ball from the ground hit by the batter, he must throw it to the first baseman who must catch the ball while maintaining contact with the base before the batter gets to the base for the batter to be out. The first baseman must be able to catch the ball very well and usually wears a specially designed mitt. The first baseman also fields balls hit near first base. The first baseman also has to receive throws from the pitcher in order to tag runners out who have reached base safely. The position is less physically challenging than the other positions, but there is still a lot of skill involved. Infielders don't always make good throws to first base, so it is the first baseman's job to field any ball thrown toward him cleanly. Older players who can no longer fulfill the demands of their original positions also often become first basemen. The second baseman covers the area to the first-base side of second base and provides backup for the first baseman in bunt situations. He also is a cut-off for the outfield. This is when the outfielder doesn't have to throw the full distance from him/her to the base, but just to the cut-off. The shortstop fills the critical gap between second and third bases—where right-handed batters generally hit ground balls—and also covers second or third base and the near part of left field. This player is also a cut-off for the outfield. This position is the most demanding defensively, so a good

shortstop doesn't need to necessarily be a good batter. The third baseman's primary requirement is a strong throwing arm, in order to make the long throw across the infield to the first baseman. Quick reaction time is also important for third basemen, as they tend to see more sharply hit balls than the other infielders, thus the nickname for third base as the "hot corner."

### **The outfielders**

The three outfielders, left fielder, center fielder, and right fielder, are so named from the catcher's perspective looking out onto the field. The right fielder generally has the strongest arm of all the outfielders due to the need to make throws on runners attempting to take third base. The center fielder has more territory to cover than the corner outfielders, so this player must be quick and agile with a strong arm to throw balls in to the infield; as with the shortstop, teams tend to emphasize defense at this position. Also, the center fielder is considered the outfield leader, and left- and right-fielders often cede to his direction when fielding fly balls. Of all outfielders, the left fielder often has the weakest arm, as they generally do not need to throw the ball as far in order to prevent the advance of any baserunners. The left fielder still requires good fielding and catching skills, and tends to receive more balls than the right fielder due to the fact that right-handed hitters, who are much more common, tend to "pull" the ball into left field. The left fielder also backs up third base on pick-off attempts from the catcher.

### **Defensive strategy**

#### Pitching

Effective pitching is vitally important to a baseball team, as pitching is the key for the defensive team to retire batters and to preventing runners from getting on base. A full game usually involves over one hundred pitches thrown by each team. However, most pitchers begin to tire before they reach this point. In previous eras, pitchers would often throw up to four complete games (all nine innings) in a week. With new advances in medical research and thus a better understanding of how the human body functions and tires out, starting pitchers tend more often to throw fractions of a game (typically 6 or 7 innings depending on their performance) about every five days (though a few complete games do still occur each year).

Multiple pitchers are often needed in a single game, including the starting pitcher and relief pitcher(s). Pitchers are substituted for one another like any other player (see below), and the rules do not limit the number of pitchers that can be used in a game; the only limiting factor is the size of the squad, naturally. In general, starting pitchers are not used in relief situations except sometimes during the post-season when every game is vital. If a game runs into many extra innings, a team may well empty its bullpen. If it then becomes necessary to

use a "position player" as a pitcher, major league teams generally have certain players pre-designated as emergency relief pitchers, to avoid the embarrassment of using a less skillful player. In baseball's early years, squads were smaller, and relief pitchers were relatively uncommon, with the starter normally remaining for the entire game unless he was either thoroughly ineffective or became injured; today, with a much greater emphasis on pitch count (100 being the "magic number" in general), over the course of a single game each team will frequently use from two to five pitchers. In the 2005 ALCS, all four of the Chicago White Sox victories were complete games by the starters, a highly noteworthy event in the modern game.

Although a pitcher can only take one step backward and one forward while delivering the ball, the pitcher has a great arsenal at his disposal in the variation of location, velocity, movement, and arm location. Most pitchers attempt to master two or three types of pitches; some pitchers throw up to 6 types of pitches with varying degrees of control. Common pitches include a fastball, which is the ball thrown at just under maximum velocity; a curveball, which is made to curve by rotation imparted by the pitcher; and a change-up, which seeks to mimic the delivery of a fastball but arrives at significantly lower velocity.

To illustrate pitching strategy, consider the "fastball/change-up" combination: The average major-league pitcher can throw a fastball around 90 miles per hour (145 km/h), and a few pitchers have even exceeded 100 miles per hour (161 km/h). The change-up is thrown somewhere between 75 to 85 miles per hour (121 to 137 km/h). Since the batter's timing is critical to hitting a pitch, a batter swinging to hit what looks like a fastball, would be terribly fooled (swing and miss, hopefully) when the pitch turns out to be a much slower change-up.

Some pitchers choose to throw using the 'submarine style,' a very efficient sidearm or near-underhand motion. Pitchers with a submarine delivery are often very difficult to hit because of the angle and movement of the ball once released. Walter Johnson, who threw one of the fastest fast balls in the history of the game, threw sidearm (though not submarine) rather than a normal overhand. True underhanded pitching is not illegal in Major League Baseball. However, it is difficult to generate enough velocity and movement with the underhand motion.

#### Fielding strategy

Only the pitcher's and catcher's locations are fixed, and then only at the beginning of each pitch. Thus, the players on the field move around as needed to defend against scoring a run. Many variations of this are possible, as location depends upon the situation. Circumstances such as the number of outs, the count (balls and strikes) on the batter, the number and speed of runners, the ability of the fielders, the ability of the pitcher, the type of pitch thrown, and the inning cause the fielders move to more strategic locations on the field. Common defensive strategies include: playing for the bunt, trying to prevent a stolen base, moving to a shallow position to throw out a runner at home, playing at "double play depth", and moving fielders to locations where hitters are most likely to hit the ball.

#### **Team at bat**

## **Batters and runners**

The ultimate goal of the team at bat is to score runs. To accomplish this feat, the team at bat successively (in a predetermined order called a lineup or batting order) sends its nine players to the batter's box (adjacent to home plate) where they become batters. (Each team sets its batting lineup at the beginning of the game. Changes to the lineup are tightly limited by the rules of baseball and must be communicated to the umpires, who have the substitutions announced for the opposing team and fans. See Substitutions below.)

A batter's turn at the plate is called a plate appearance or an "at-bat." Batters advance to the bases in a variety of ways: hits, walks, hit-by-pitch, and a few others. When the batter hits a fair ball, he must run to first base, and may continue or stop at any base unless he is put out. A successful hit occurs when the batter reaches a base: reaching only first base is a single; reaching second base, a double; third base, a triple; and a hit that allows the batter to touch all bases in order on the same play is a home run, whether or not the ball is hit over the fence. Once a runner is held to a base, he may attempt to advance at any time, but is not required to do so unless the batter or another runner displaces him (called a force play). A batter always drops his bat when running the bases— otherwise, the bat would slow him down and could give rise to a call of fielder to catch it on its descent. A line drive is like a fly ball, but the ball is hit with such force that its trajectory seems level to the ground. A batted ball which is not hit into the air, and which touches the ground within the infield before it can be caught, is called a ground ball. When a ball is hit outside the foul line, it is a foul ball, requiring the batter and all runners to return to their respective bases.

Once the batter and any existing runners have all stopped at a base or been put out, the ball is returned to the pitcher, and the next batter comes to the plate. After the opposing team bats in its own order and three more outs are recorded, the first team's batting order will continue again from where it left off.

When a runner reaches home plate, he scores a run and is no longer a base runner. He must leave the playing area until his spot in the order comes up again. A runner may only circle the bases once per plate appearance and thus can score no more than a single run.

## **Batting**

Each plate appearance consists of a series of pitches, in which the pitcher throws the ball towards home plate while a batter is standing in the batter's box. With each pitch, the batter must decide whether or not to swing the bat at the ball in an attempt to hit it. The pitches arrive quickly, so the decision to swing must be made in less than a tenth of a second, based on whether or not the ball is hittable and in the strike zone, a region defined by the area directly above home plate and between the hollow beneath the batter's knee and the midpoint between the top of the shoulders and the top of the uniform pants. In addition to

swinging at the ball, a batter who wishes to put the ball in play may hold his bat over home plate and attempt to tap a pitch lightly; this is called a bunt.

On any pitch, if the batter swings at the ball and misses, he is charged with a strike. If the batter does not swing, the home plate umpire judges whether or not the ball passed through the strike zone. If the ball, or any part of it, passed through the zone, it is ruled a strike; otherwise, it is called a ball. The number of balls and strikes thrown to the current batter is known as the count; the count is always given balls first (except in Japan, where it is reversed), then strikes (such as 3-2 or "three and two", also known as a "full count," which would be 3 balls and 2 strikes).

If the batter swings and makes contact with the ball, but does not put it in play in fair territory—a foul ball—he is charged with an additional strike, except when there are already two strikes. Thus, a foul ball with two strikes leaves the count unchanged. (However, a noted exception to this rule is that a ball bunted foul with two strikes always counts as a strike.) If a pitch is batted foul or fair and a member of the defensive team is able to catch it, before the ball strikes the ground, the batter is declared out. In the event that a bat contacts the ball, but the ball continues sharply and directly to the catcher's mitt and is caught by the catcher, it is a foul tip, which is same as an ordinary strike.

When three strikes occur on a batter, it is a strikeout and the batter is automatically out unless the pitch is not caught by the catcher or if the pitch bounces before it is caught. It is then ruled a dropped third strike. (This is a violation of the third strike rule[2]). If the catcher drops the third strike the batter is permitted to attempt to advance to first base. In this case, the batter is not out (although the pitcher is awarded a strikeout). The catcher can try to get the batter out by tagging him with the ball or throwing the ball to first base and forcing him out. (See Doug Eddings/2005 ALCS and Mickey Owen/1941 World Series for famous examples of dropped third strikes that dramatically altered the course of post-season series'.)

On the fourth ball the batter becomes a runner, and is entitled to advance to first base without risk of being put out, called a base on balls or a walk (abbreviated BB). If a pitch touches the batter, the umpire declares a hit by pitch (abbreviated HBP) and the batter is awarded first base, unless the umpire determines that the ball was in the strike zone when it hit the batter, or that the batter did not attempt to avoid being hit. In practice, neither exception is ever called unless the batter obviously tries to get hit by the pitch; even standing still in the box will virtually always be overlooked, and the batter awarded first.

## **Baserunning**

Once a batter becomes a runner and reaches first base safely, he is said to be "on" that base until he attempts to advance to the next base, until he is put out, or until the half-inning ends. When comparing two or more runners on the basepaths, the runner farther along is called a lead runner or a preceding runner; the other runner is called a trailing runner or a following runner. Runners on second or third base are considered to be in scoring position since ordinary hits, even singles, will often score them.

A runner legally touching a base is "safe"—he may not be put out. Runners may attempt to advance from base to base at any time (except when the ball is dead), but must attempt to advance when forced--when all previous bases are occupied and the batter becomes a runner. When a ball is hit in the air, a fly ball, and caught by the defending team, runners must return and touch the base they occupied at the time of the pitch—called tagging up—after the ball is first touched. Once they do this, they may attempt to advance at their own risk.

Only one runner may occupy a base at a time; if two runners are touching a base at once, the trailing runner is in jeopardy and will be out if tagged, unless he was forced--in which case the lead runner is out when tagged for failing to reach his force base. Either such occurrence is very rare. Thus, after a play, at most three runners may be on the basepaths, one on each base--first, second, and third. When three runners are on base, this is called bases loaded.

Baserunners may attempt to advance, or steal a base, while the pitcher is throwing a pitch. The pitcher, in lieu of delivering the pitch, may try to prevent this by throwing the ball to one of the infielders in order to tag the runner; if successful, it is called a pick-off. If the runner attempts to steal the next base but is tagged out before reaching it safely, he is caught stealing. An illegal attempt by the pitcher to throw a runner out, among other pitching violations, is called a balk, allowing the runners to advance one base without risk of being put out.

### **Batting and base running strategy**

The goal of each batter is to become a base runner himself (by a base hit, a base on balls, being hit by the pitch, a fielding error, or fielder's choice) or to help move other base runners along (by sacrifice bunt, sacrifice fly, or hit and run).

Batters attempt to "read" pitchers through pre-game preparation by studying the tendencies of pitchers and by talking to other batters that previously faced the pitcher. While batting, batters attempt to "read" pitches by looking for clues that the pitcher or catcher reveal. These clues (also referred to as "tipping pitches") include movements of the pitchers arms, shoulders, body, etc, or the positioning of the catcher's feet and glove. Batters can attempt to "read" the spin of a ball early in the pitch to anticipate its trajectory. Batters also remain keenly aware of the count during their at bat. The count is considered to be in the batter's favor when there are more balls than strikes(e.g.two balls and no strikes). This puts pressure on the pitcher to throw a strike to avoid a walk so the batter is more likely to get an easier pitch to hit and can look for a particular pitch in a particular zone or take a riskier or bigger swing. The count is considered to be in the pitcher's favor when there are fewer balls than strikes(e.g. no balls and two strikes). This gives the pitcher more freedom to try enticing the batter to swing at a pitch outside the strike zone or throwing a pitch that is harder to control (e.g. a curve, slider or splitter), but that is also harder to hit. Thus the batter will take a more conservative swing.

In general, base running is a tactical part of the game requiring good judgment by runners (and their coaches) to assess the risk in attempting to advance. During tag plays, a good slide

can affect the outcome of the play. Managers will sometimes simultaneously send a runner and require the batter to swing (a hit-and-run play) in an attempt to advance runners. Often, on a hit-and-run play the batter will try to "hit behind the runner" by hitting the ball to right field which makes it more likely that the runner will be able to make it to third base, thus taking an extra base.

A batter can also attempt to move a baserunner forward by "sacrificing" his at-bat. This can be done by bunting the ball, hitting a fly ball far enough in the air that a baserunner can advance after the catch, or simply making contact with the ball on a hit-and-run play.

During the course of play many offensive and defensive players run close to each other, and during tag plays, the defensive player must touch the offensive player. Although baseball is considered a non-contact sport, a runner may be allowed to make potentially dangerous contact with a fielder as part of an attempt to reach a base, unless that fielder is fielding a batted ball. (Noted exceptions to the dangerous contact rule are found throughout amateur competitions, including youth leagues, high school, and college baseball.) A good slide is often more advantageous than such contact, and "malicious" contact by runners is typically prohibited as offensive interference. The most common occurrence of contact of this nature is at home plate between the runner and the catcher, as the catcher is well padded and locked into position on or near the plate, and the runner will often try to knock the ball out of the catcher's hand. Since the catcher is seen (symbolically and literally) as the last line of defense, it seems natural that the more physical play happens here.

## **Innings and determining a winner**

An inning consists of each team having one turn in the field and one turn to hit, with the visiting team batting before the home team. A standard game lasts nine innings, although some leagues (such as high school baseball) use seven-inning games. The team with the most runs at the end of the game wins. If the home team is ahead after eight-and-a-half innings have been played, it is declared the winner, and the last half-inning is not played. If the home team is trailing or tied in the last inning and they score to take the lead, the game ends as soon as the winning run touches home plate; however, if the last batter hits a home run to win the game, he and any runners on base are all permitted to score.

If both teams have scored the same number of runs at the end of a regular-length game, a tie is avoided by the addition of extra innings. As many innings as necessary are played until one team has the lead at the end of an inning. Thus, the home team always has a chance to respond if the visiting team scores in the top half of the inning; this gives the home team a small tactical advantage. In theory, a baseball game could go on forever; in practice, however, they eventually end. In addition to that rule, a game might theoretically end if both the home and away team were to run out of players to substitute (See Substitutions). In Major League Baseball the longest game played was a 26-inning affair between the Brooklyn Robins and Boston Braves on May 1, 1920. The game ended in a 1-1 tie called on account of darkness.

In Major League Baseball, games end with tie scores only because conditions have made it impossible to continue play. A tie game does not count as an official game in the standings unless it is finished later or replayed; however, individual player statistics from tie games



are counted. Inclement weather may also shorten games, but at least five innings must be played for the game to be considered official; four-and-a-half innings are enough if the home team is ahead. Previously, curfews and the absence of adequate lighting caused more ties and shortened games. Also, with more modern playing surfaces better able to handle light rains, the process for calling or shortening a game due to weather has changed; it is more common than in the past to delay a game as much as 2 hours before a cancellation; also, a delay usually does not occur anymore until the rain is moderate-heavy and/or there is standing water on some part of the playing field.

In Japanese baseball, if the score remains tied after nine innings, up to three extra innings may be played before the game is called a tie. Some youth or amateur leagues will end a game early if one team is ahead by ten or more runs, a practice known as the "mercy rule" or "slaughter rule". Rarely, a game can also be won or lost by forfeit.

There is a short break between each half-inning during which the new defensive team takes the field and the pitcher warms up. Traditionally, the break between the top half and the bottom half of the seventh inning is known as the seventh-inning stretch. During the "stretch," fans in the United States often sing the chorus of "Take Me Out to the Ball Game," although since September 11, 2001, "God Bless America" has become common.

## **Substitutions**

Each team is allowed to substitute for any player at any time the ball is dead. A batter who replaces another batter is referred to as a pinch hitter; similarly, a pinch runner may be used as a replacement for a baserunner. Any replacement is a permanent substitution; the replaced player may not return to the game.

It is common for a pitcher to pitch for several innings and then be removed in favor of a relief pitcher. Because pitching is a specialized skill, most pitchers are relatively poor hitters; it is common to substitute for a pitcher when he is due to bat. This pinch hitter is typically then replaced by a relief pitcher when the team returns to the field on defense, but more complicated substitutions are possible, most notably the double switch.

Many amateur leagues allow a starting player who was removed to return to the game in the same position in the batting order under a re-entry rule. Youth leagues often allow free and open substitution to encourage player participation.

Most leagues, notably American League, allow a designated hitter, a player whose sole purpose is to hit when it would normally be the pitcher's turn. This is not considered a substitution but rather a position, albeit a purely offensive one. A designated hitter does not play in the field on defense and may remain in the game regardless of changes in pitchers.

## **Rosters**

During the course of a game, each baseball team has players that are an active part of the game, called in the game, and players that are not, called on the bench. The players on the bench are needed in case of injuries and to make strategic pitching, fielding, and batting substitutions. To keep the game fair, each team is limited to a fixed number of players. That number is dictated by the rules of the game. In the major leagues, a team may have a maximum of 25 men on a roster from Opening Day until August 31. After that, teams may call up additional personnel, up to a maximum of 40 players on the active roster, with the exception of the postseason, where rosters are fixed at 25 men.

## **Other personnel**

Each team is run by a manager, whose primary responsibility during the game is to assign players to fielding positions, determine the lineup, deciding how to substitute players, and, most importantly, choosing the course of strategy throughout the game. Managers are also assisted by coaches in helping players to develop their skills. When a team is at-bat, they will position a coach or manager in each coach's box referred to as the first and third base coaches. These coaches must help the players decide whether they should try to run to the next base; also, the coaches will signal plays to the batter and runners. Baseball is unique in that the manager and coaches all wear numbered uniforms similar to those of the players.

Any baseball game involves one or more umpires, who make rulings on the outcome of each play. At a minimum, one umpire will stand behind the catcher, to have a good view of the strike zone, and call each pitch a ball or a strike. Additional umpires may be stationed near the bases, thus making it easier to see plays in the field. In Major League Baseball, four umpires are used for each game, one near each base. In the all-star game and playoffs, six umpires are used: one at each base and two in the outfield along either foul line.

Another notable role in baseball is that of the official scorer. The results of baseball games are summarized in tables called box scores. The scorer is responsible for a number of judgments that go into the boxscore. For example, if a batted ball is misplayed by a fielder, the scorer may choose to charge the fielder with an error instead of crediting the batter with a hit. Within certain guidelines, the scorer also determines which pitchers are credited with winning and losing the game, and whether a relief pitcher will be awarded a hold or save, specific situations in which a relief pitcher keeps a lead intact for his team.

## **Baseball's unique style**

Baseball is unique among American sports in several ways. This uniqueness is a large part of its longstanding appeal and strong association with the American psyche. The philosopher Morris Raphael Cohen described baseball as a national religion. Many people believe that baseball is the ultimate combination of skill, timing, athleticism, and strategy. Yogi Berra (a Hall of Fame baseball player) once said: "Baseball is 90% mental—the other

half is physical." Although these elements all contribute to baseball's appeal in American culture, they are also shared by its cousin game cricket. In many Commonwealth nations, cricket and the culture surrounding it hold a similar place and affection to baseball's role in American culture.

The lure of baseball is in its subtleties: situational defense, pitch location, pitch sequence, statistics, ball parks, history, and player personalities. It's been noted that the game itself has no time limit, and its playing surface, rather than rigidly rectangular and standardized, extends theoretically to eternity from a single point (home plate) to beyond its own fences (if only a batter could hit a ball hard enough to break the escape velocity of Earth). For the avid fan, the game—even during its slowest points—is never boring because of these nuances. Therefore, a full appreciation of baseball naturally requires some knowledge of the rules; it also requires deep observation of those endearing and enduring qualities that give baseball its unique style.

## **Time element**

American football, basketball, ice hockey and soccer all use a clock, and games often end by a team killing the clock rather than competing directly against the opposing team. In contrast, baseball has no clock; a team cannot win without getting the last batter out and rallies are not constrained by time.

In recent decades, observers have criticized professional baseball for the length of its games, with some justification as the time required to play a baseball game has increased steadily through the years. One hundred years ago, games typically took an hour and a half to play; in 2004, the average major league baseball game lasted 2 hours and 47 minutes. This is due to longer breaks between half-innings for television commercials, increased offense, more pitching changes, and a slower pace of play.

In response, Major League Baseball has instructed umpires to be more strict in enforcing speed-up rules and the size of the strike zone. Although the official rules specify that when the bases are empty, the pitcher should deliver the ball within 20 seconds of receiving it (with the penalty of a ball called if he fails to do so), this rule is rarely, if ever, enforced.

## **Individual and team**

Baseball is fundamentally a team sport—even two or three Hall of Fame-caliber players are no guarantee of a pennant—yet it places individual players under great pressure and scrutiny. The pitcher must make good pitches or risk losing the game; the hitter has a mere fraction of a second to decide what pitch has been thrown and whether or not to swing at it. While their respective managers and/or coaches can sometimes signal players regarding the strategies the manager wants to employ, no one can help the pitcher while he pitches or the hitter while he bats. If the batter hits a line drive, the outfielder, as the last line of defense, makes the lone decision to try to catch it or play it on the bounce. Baseball history is full of

heroes and goats—men who in the heat of the moment (the "clutch") distinguished themselves with a timely hit or catch, or an untimely strikeout or error.

### **The uniqueness of each baseball park**

Unlike the majority of sports, baseball parks do not have to follow a strict set of guidelines. With the exception of the strict rules on the dimensions of the infield, discussed above, the official rules simply state that fields built after June 1, 1958 must have a minimum distance of 325 feet (99 m) from home plate to the fences in left and right field and 400 (121 m) feet to center. This rule (a footnote to official rule 1.04) was passed specifically in response to the fence at the Los Angeles Memorial Coliseum, which was 251 feet (77 m) to the left field pole, 1 foot (0.3 m) over the bare minimum required by the rules. However, major league teams often skirt this rule. For example, Minute Maid Park's left field is only 315 feet (96 m), and with a fence much lower than the famous "Green Monster" at Fenway Park. And there are no rules at all regulating the height of "fences, stands or other obstructions", other than the assumption that they exist. Because of this flexibility, there are all sorts of variations in parks, from different lengths to the fences to uneven playing surfaces to massive or minimal amounts of foul territory. All of these factors, as well as local variations in altitude, climate and game scheduling, can affect the nature of the games played at those ballparks, and a park may be referred to as either a "pitcher's park" or a "hitter's park", depending on which side benefits more from the unique factors present. Wrigley Field, strangely enough, can be either, depending on the wind direction at any given time.

### **Statistics**

As with many sports, and perhaps even more so, statistics are very important to baseball. Statistics have been kept for the Major Leagues since their creation, and presumably statistics were around even before that. General managers, baseball scouts, managers, and players alike study player statistics to help them choose various strategies to best help their team.

Traditionally, statistics like batting average for batters—the number of hits divided by the number of at bats—and earned run average—approximately the number of runs given up by a pitcher per nine innings—have governed the statistical world of baseball. However, the advent of sabermetrics has brought an onslaught of new statistics that perhaps better gauge a player's performance and contributions to his team from year to year.

Some sabermetrics have entered the mainstream baseball statistic world. On-base plus slugging (OPS) is a somewhat complicated formula that gauges a hitter's performance better than batting average. It combines the hitter's on base percentage—hits plus walks plus hit by pitches divided by plate appearances—with their slugging percentage—total bases divided by at bats. Walks plus hits per inning pitched (or WHIP) gives a good representation of a pitcher's abilities; it is calculated exactly as its name suggests.

Also important are more specific statistics for particular situations. For example, a certain hitter's ability to hit left-handed pitchers might cause his manager to give him more chances to face lefties. Some hitters hit better with runners in scoring position, so an opposing manager, knowing this statistic, might elect to intentionally walk him in order to face a poorer hitter.

## **Popularity**

Baseball is most popular in East Asia and the Americas, although it is also popular in South America mainly in the northern portion of the continent as well as Brazil. In Japan, Puerto Rico, the Dominican Republic, Cuba, Panama, Venezuela, Nicaragua, South Korea, and Taiwan, it is one of the most popular sports. The United States is the birthplace of baseball, and there it has long been regarded as more than just a "major sport" - it has been considered, for decades, the national pastime and Major League Baseball has been given a unique monopoly status by the United States Congress. Although three of the four most popular sports in North America are ball games — baseball, basketball and American football — baseball's popularity grew so great that the word "ballgame" in the United States almost always refers to a game of baseball, and "ballpark" to a baseball field (except in the South, where "ballgame" is also used in association with football).

Baseball has often been a barometer of the fabled American "melting pot", as immigrants from different regions have tried to "make good" in various areas including sports. In the 19th century, baseball was populated with many players of Irish or German extraction. A number of Native Americans had successful careers especially in the early 1900s. Italians and Poles appeared on many rosters during the 1920s and 1930s. Black Americans came on strong starting in the late 1940s after the barriers had been lifted, and continue to form a significant contingent. By the 1960s, Hispanics had started to make the scene, and had become a dominant force by the 1990s. In the 21st century, East Asians have been appearing in increasing numbers.

While baseball is perhaps the most popular sport in the United States and is certainly one of the two most popular along with football, it is difficult to determine which is more popular because of the wide discrepancy in number of games per season. For example, the total attendance for Major League games is roughly equal to that of all other American professional team sports combined, but football gets higher television ratings, both a function in part of the long (162-game) baseball season and short (16-game) football season.

## **Organized leagues**

Baseball is played at a number of levels, by amateur and professionals, and by the young and the old. Youth programs use modified versions of adult and professional baseball rules, which may include a smaller field, easier pitching (from a coach, a tee, or a machine), less contact, base running restrictions, limitations on innings a pitcher can throw, liberal balk rules, and run limitations, among others. Since rules vary from location-to-location and among the organizations, coverage of the nuances in those rules is beyond this article.

Following is a list of organized leagues:

- Youth Leagues
  - Little League, a youth program, headquartered in Williamsport, Pennsylvania (USA).
  - Pony Baseball, a youth program, headquartered in Washington, Pennsylvania (USA).
  - Dizzy Dean Baseball a youth program in the USA.
  - American Legion Baseball, a youth program, headquartered in Indianapolis, IN.
  - USSSA Baseball a youth and adult program, headquartered in Kansas City, Missouri (USA).
  - Ripken Baseball, a youth program, headquartered in Baltimore, Maryland (USA).
  - Babe Ruth League, a youth program, headquartered in Trenton, New Jersey (USA).
  - Moberly Midget League a youth program headquartered in Moberly, Missouri (USA).
- High School
  - In the USA, the National Federation of State High School Associations (NFHS) and each state association governs the play of baseball at the high school level.
- Collegiate Level
  - List of Collegiate Summer Baseball Leagues
  - NCAA, including NCAA Division I and the College World Series, are collegiate level baseball programs played in the USA.
  - National Club Baseball Association (NCBA)
- International Competition
  - Many international baseball events are coordinated by the International Baseball Federation, including The World Cup and The World Baseball Classic.
  - As an Olympic sport, see earlier section on the status of baseball in the Olympic games, and the article "Baseball at the Summer Olympics."
- Semi-professional baseball
  - National Semi-Pro Baseball Association
- Professional baseball
  - Major League Baseball (MLB) in the United States;
  - Minor League baseball in the United States;
  - Independent Baseball
  - Negro League baseball, defunct since 1958, in the United States.
  - All-American Girls Professional Baseball League
  - Mexican Baseball
  - Japanese Baseball
  - Taiwan professional baseball
  - Korean Baseball Organization (KBO)

Australian Baseball

There are also smaller professional leagues in China, Italy, Germany, the Netherlands, and many others.

## Footnotes

1. ^

2. ^ The "third strike rule", which has been on the books since at least the time of the Knickerbocker Rules, is that the batter can try to advance to first base on the third strike, if the third strike is not caught. However, the batter is not permitted to advance if first base is occupied, unless there are already two outs. This is to prevent the catcher from dropping the ball on purpose and setting up a potential double or triple play. The underlying concept is the same as the "Infield Fly Rule", to curb defensive shenanigans. Both rules change when there are two outs, because then there is no defensive advantage to dropping the ball on purpose. Statistically, such a play still counts as a strikeout for the pitcher, plus either a passed ball charged to the catcher or a wild pitch charged to the pitcher, so if the batter advances safely to first on such a play, it is possible for a pitcher to record 4 (or more) strikeouts in one inning. Such has happened several dozen times in the history of the major leagues, and at least one time in the minor leagues a pitcher has recorded 5.

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An Eight-Page Indenture/ Instrument #33043 between The London and Western Trusts Company Limited, The Corporation of The City of London and John Labatt, Limited, dated December 31, 1936, and registered on title in the Land Registry Office for the City of London on January 2, 1937, conveying Tecumseh Park to the City of London along with \$10,000 on the provisos that the athletic field be preserved, maintained and operated "for the use of the citizens of the City of London as an athletic field and recreation ground" and that it be renamed "The John Labatt Memorial Athletic Park."

Heritage Baseball: City of London a souvenir program from July 23, 2005, celebrating the history of Labatt Park and London, Ontario's 150th anniversary as an incorporated city.

## **Basketball**

*Basketball* is a sport in which two teams of five players each try to score points on one other by throwing a ball through a hoop (the basket) under organized rules.

Since its invention in 1891, it has developed to become a truly international sport. Organized league play originated in the YMCA and early leagues were formed in colleges. Basketball eventually became a professional sport and is one of the few women's sports which developed in tandem with men's. The modern rules for women's basketball become more similar to men's each year. Even though it was originally an American sport, it quickly spread internationally and outstanding players and teams are found today all over the world.

Points are scored for passing the ball through the basket from above; the team with more points at the end of the game wins. The ball can be advanced on the court by bouncing it (dribbling) or passing it between teammates. Disruptive physical contact (foul) is not permitted and there are restrictions on how the ball can be handled (violations).

Through time, basketball has developed to involve common techniques of shooting, passing and dribbling, as well as players' positions, and offensive and defensive structures. While competitive basketball is carefully regulated, numerous variations of basketball have developed for casual play. Basketball is also a popular spectator sport.

While competitive basketball is primarily an indoor sport, played on a basketball court, less regulated variations have become exceedingly popular as an outdoor sport among inner city groups, particularly African-Americans. Examples of these variations include streetball and one-on-one; a variation in which two players will use only a small section of the court



(often no more than a quarter of a court) and compete to play the ball into a single hoop. Such games tend to be more physical than competitive indoor basketball, and emphasize individual dribbling and ball stealing skills over shooting and team play.

Outdoor basketball courts are commonly referred to as 'blacktop', a reference to the [asphalt] surface used on many outdoor recreation grounds. This term can apply regardless of the actual surface material used.

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## History

### Early basketball

Basketball is unique in that it was invented by one person, rather than evolving from a different sport. In early December 1891, Dr. James Naismith, a Canadian-born physician of McGill University and minister on the faculty of a college for YMCA professionals (today, Springfield College) in Springfield, Massachusetts, sought a vigorous indoor game to keep young men occupied during the long New England winters. Legend has it that, after rejecting other ideas as either too rough or poorly suited to walled-in gymnasiums, he wrote the basic rules, and nailed a peach basket onto the 10 foot (3.05 m) elevated track. In contrast with modern basketball nets, this peach basket retained its bottom. Therefore balls scored into

the basket had to be poked out with a long dowel each time. Women's basketball began in 1892, at Smith College, when Senda Berenson, a physical education teacher, modified Naismith's rules for women. The first official basketball game was played in the YMCA gymnasium on January 20, 1892 with nine players, on a court just half the size of a present-day NBA court. "Basket ball", the name suggested by one of Naismith's students, was popular from the beginning.

Basketball's early adherents were dispatched to YMCAs throughout the United States, and it quickly spread through the country. By 1896, it was well established at several women's colleges. While the YMCA was responsible for initially developing and spreading the game, within a decade, it discouraged the new sport, as rough play and rowdy crowds began to detract from the YMCA's primary mission. However, other amateur sports clubs, colleges, and professional clubs quickly filled the void. In the years before World War I, the Amateur Athletic Union and the Intercollegiate Athletic Association (forerunner of the NCAA) vied for control over the rules for the game.

Basketball was originally played with a soccer ball. The first balls made specifically for basketball were brown, and it was only in the late 1950s that Tony Hinkle, searching for a ball that would be more visible to players and spectators alike, introduced the orange ball that is now in common use.

Interestingly, basketball, netball, volleyball and lacrosse are the only ball games which have been identified as being invented by North Americans. Other ball games, such as baseball and football, have British Commonwealth or European connections.

## **College basketball and early leagues**

Naismith and Berenson were instrumental in establishing college basketball. Naismith coached at University of Kansas for six years before handing the reins to renowned coach Phog Allen. Naismith's disciple Amos Alonzo Stagg brought basketball to the University of Chicago, while Adolph Rupp, a student of Naismith's at Kansas, enjoyed great success as coach at the University of Kentucky. In 1892, University of California and Miss Head's School, played the first women's inter-institutional game. Berenson's freshmen played the sophomore class in the first women's collegiate basketball game at Smith College, March 21, 1893. The same year, Mount Holyoke and Sophie Newcomb College (coached by Clara Gregory Baer) women began playing basketball. By 1895, the game had spread to colleges across the country, including Wellesley, Vassar and Bryn Mawr. The first intercollegiate women's game was on April 4, 1896. Stanford women played Berkeley, 9-on-9, ending in a 2-1 Stanford victory. In 1901, colleges, including the University of Chicago, Columbia University, Dartmouth College, University of Minnesota, the U.S. Naval Academy, the University of Utah and Yale University began sponsoring men's games. By 1910, frequent injuries on the men's courts prompted President Roosevelt to suggest that college basketball form a governing body. And the Intercollegiate Athletic Association (IAA) was created.

Teams abounded from through the 1920s. There were hundreds of men's professional basketball teams in towns and cities all over the United States and little organization of the professional game. Players jumped from team to team and teams played in armories and

smoky dance halls. Leagues came and went. And barnstorming squads such as the Original Celtics and two all African American teams, the New York Renaissance Five ("Rens") and (still in existence as of 2006) the Harlem Globetrotters played up to two hundred games a year on their national tours. Women's basketball was more structured. In 1905, the National Women's Basketball Committee's Executive Committee on Basket Ball Rules was created by the American Physical Education Association. These rules called for six to nine players per team and 11 officials. The International Women's Sports Federation (1924) included a women's basketball competition. 37 women's high school varsity basketball or state tournaments were held by 1925. And in 1926, the Amateur Athletic Union backed the first national women's basketball championship, complete with men's rules. The first women's AAU All-America team was chosen in 1929. Women's industrial leagues sprang up throughout the nation, producing famous athletes like Babe Didrikson of the Golden Cyclones and the All American Red Heads Team who competed against men's teams, using men's rules. By 1938, the women's national championship changed from a three-court game to two-court game with six players per team. The first men's national championship tournament, the National Invitation Tournament (NIT) in New York, was organized in 1938.

College basketball was rocked by gambling scandals from 1948 to 1951, when dozens of players from top teams were implicated in match fixing and point shaving. Partially spurred by an association with cheating, the NIT lost support to the NCAA national tournament. Today, the NCAA men's and women's "March Madness" tournaments are rivaled only by the MLB World Series and the NFL Super Bowl in the American sports psyche.

## **U.S. high school basketball**

Before widespread school district consolidation, most United States high schools were far smaller than their present day counterparts and during the first decades of the 20th century basketball quickly became the ideal interscholastic sport due to its modest equipment and personnel requirements. In the days before widespread television coverage of professional and college sports, the popularity of high school basketball was unrivaled in many parts of America.

Today virtually every high school in the United States fields a basketball team in varsity competition, and its popularity remains high, both in rural areas where they carry the identification of the entire community, as well as at some larger schools known for their basketball teams where many players go on to participate at higher levels of competition after graduation. In the 2003-04 season, 1,002,797 boys and girls represented their schools in interscholastic basketball competition, according to the National Federation of State High School Associations. The states of Illinois, Indiana and Kentucky are particularly well known for their residents' devotion to high school basketball; the critically acclaimed film *Hoosiers* shows high school basketball's depth of meaning to these rural communities. In fact, the term "March Madness" was first used to describe the Illinois high school basketball tournament.

## **National Basketball Association**

In 1946, the National Basketball Association (NBA) was formed, organizing the top professional teams and leading to greater popularity of the professional game. An upstart organization, the American Basketball Association, emerged in 1967 and briefly threatened the NBA's dominance until the rival leagues merged in 1976. Today the NBA is the top professional basketball league in the world in terms of notoriety, salaries, talent, and level of competition.

The NBA has featured many famous players, including George Mikan, the first dominating "big man"; ball-handling wizard Bob Cousy and defensive genius Bill Russell of the Boston Celtics; Wilt Chamberlain, who originally played for the barnstorming Harlem Globetrotters; all-around stars Oscar Robertson and Jerry West; more recent big men Kareem Abdul-Jabbar and Bill Walton; playmaker John Stockton; and the four players who many credit with ushering the professional game to its highest level of popularity: Julius Erving, Larry Bird, Magic Johnson, and Michael Jordan.

The NBA-backed Women's National Basketball Association (WNBA) began 1997. Though it had an insecure opening season, several marquee players (Sheryl Swoopes, Lisa Leslie and Sue Bird among others) helped the league's popularity and level of competition. Other professional women's basketball leagues in the United States, such as the American Basketball League (1996-1998), have folded in part because of the popularity of the WNBA.

In 2001, the NBA formed a developmental league, the NBDL. The league currently has 8 teams, but will add 7 more for the 2006-2007 season.

## **International basketball**

The International Basketball Federation was formed in 1932 by eight founding nations: Argentina, Czechoslovakia, Greece, Italy, Lithuania, Portugal, Romania and Switzerland. At this time, the organization only oversaw amateur players. Its acronym, in French, was thus FIBA; the "A" standing for amateur.

Basketball was first included in the Olympic Games in 1936, although a demonstration tournament was held in 1904. This competition has usually been dominated by the United States, whose team has won all but three titles, the first loss in a controversial final game in Munich in 1972 against the Soviet Union. In 1950 the first Basketball World Championship for men was held in Argentina. Three years later, the first World Championships for women were held in Chile. Women's basketball was added to the Olympics in 1976, with teams such as Brazil and Australia rivaling the American squads.

FIBA dropped the distinction between amateur and professional players in 1989, and in 1992, professional players played for the first time in the Olympic Games. The United States' dominance continued with the introduction of their Dream Team. However, with developing programs elsewhere, other national teams are starting to catch up with the United States. A team made entirely of NBA players finished sixth in the 2002 World Championships in Indianapolis, behind Yugoslavia, Argentina, Germany, New Zealand and Spain. In the 2004 Summer Olympics, the United States suffered its first Olympic loss while using professional players, falling to the Puerto Rican national basketball team and eventually came in third after Argentina and Italy. Although it should be noted that only two of the twelve players

originally selected by the NBA, Tim Duncan and Allen Iverson, choose to play in the 2004 Olympics and the team was cobbled from second and third choices.

Worldwide, basketball tournaments are held for boys and girls of all age levels, from five- and six-year-olds (called biddy-biddy), to high school, college, and the professional leagues.

The global popularity of the sport is reflected in the nationalities represented in the NBA. Players from all over the globe can be found in NBA teams. Steve Nash, who won the 2005 and 2006 NBA MVP award as the Most Valuable Player in the NBA, is a Canadian player. Dallas Mavericks superstar Dirk Nowitzki is German. All-Star Pau Gasol of the Memphis Grizzlies is from Spain. The San Antonio Spurs feature three stars from outside the United States: Tim Duncan of the Virgin Islands, Manu Ginobili of Argentina, and Tony Parker of France. (Duncan competes for the United States internationally.)

The all-tournament team at the most recent Basketball World Championship held in 2002 in Indianapolis demonstrates the globalization of the game equally dramatically. The team featured Nowitzki, Ginobili, Peja Stojakovic of Yugoslavia, Yao Ming of China, and Pero Cameron of New Zealand; all except Cameron were or became NBA players.

In the NBA men get paid a great deal more than women playing in the WNBA but that is slowly changing.

## **Rules and regulations**

Measurements and time limits discussed in this section often vary among tournaments and organizations; international and NBA rules are used in this section.

The object of the game is to outscore one's opponents by throwing the ball through the opponents' basket from above while preventing the opponents from doing so on their own. An attempt to score in this way is called a shot. A successful shot is worth two points, or three points if it is taken from beyond the three-point arc which is 6.25 meters (20 ft 6 in) from the basket in international games and 23 ft 9 in (7.24 m) in NBA games.

## **Playing regulations**

Games are played in four quarters of 10 (international) or 12 minutes (NBA). Fifteen minutes are allowed for a half-time break, and two minutes are allowed at the other breaks. Overtime periods are five minutes long. Teams exchange baskets for the second half. The time allowed is actual playing time; the clock is stopped while the play is not active. Therefore, games generally take much longer to complete than the allotted game time, typically about two hours.

Five players from each team may be on the court at one time. Teams can have up to seven substitutes. Substitutions are unlimited but can only be done when play is stopped. Teams also have a coach, who oversees the development and strategies of the team, and other team personnel such as assistant coaches, managers, statisticians, doctors and trainers.

For both men's and women's teams, a standard uniform consists of a pair of shorts and a tank top with a clearly visible number, unique within the team, printed on both the front and back. Players wear high-top sneakers that provide extra ankle support. Typically, team names, players' names and sometimes sponsors are printed on the uniforms.

A limited number of time-outs, clock stoppages requested by a coach for a short meeting with the players, are allowed. They generally last no longer than one minute unless, for televised games, a commercial break is needed.

The game is controlled by the officials consisting of the referee, one or two umpires and the table officials. The table officials are responsible for keeping track of each teams scoring, timekeeping, individual and team fouls, player substitutions, team possession arrow, and the shot clock.

## **Equipment**

The only essential equipment in basketball is the ball and the court: a flat, rectangular surface with baskets at opposite ends. Competitive levels require the use of more equipment such as clocks, scoresheets, scoreboards, alternating possession arrows, and whistle-operated stop-clock systems.

The men's ball's circumference is about 30 inches (76 cm) and weighs about 1 lb 5 oz (600 g). The women's ball's circumference is about 29 inches (73 cm) and weighs about 1 lb 3 oz (540 g). A regulation basketball court in international games is 28 by 15 meters (approx. 92 by 49 ft) and in the NBA is 94 by 50 feet (29 by 15 m). Most courts are made of wood.

A cast-iron basket with net and backboard hang over each end of the court. At almost all levels of competition, the top of the rim is exactly 10 feet (3.05 m) above the court and 4 feet (1.2 m) inside the endline. While variation is possible in the dimensions of the court and backboard, it is considered important for the basket to be the correct height; a rim that is off by but a few inches can have an adverse effect on shooting.

## **Violations**

The ball may be advanced toward the basket by being shot, passed between players, thrown, tapped, rolled or dribbled (bouncing the ball while running).

The ball must stay within the court; the last team to touch the ball before it travels out of bounds forfeits possession. The ball-handler may not move both feet without dribbling, known as traveling, nor may he dribble with both hands or catch the ball in between dribbles, a violation called double dribbling. A player's hand must remain on top of the ball while dribbling, failure to do so is known as carrying the ball. A team, once having established ball control in the front half of the court, may not return the ball to the backcourt. The ball may not be kicked nor struck with the fist. A violation of these rules results in loss of possession, or, if committed by the defense, a reset of the shot clock.

There are limits imposed on the time taken before progressing the ball past halfway (8 seconds in international and NBA), before attempting a shot (24 seconds), holding the ball while closely guarded (5 seconds), and remaining in the restricted area (the lane, or "key") (3 seconds). These rules are designed to promote more offense.

No player may interfere with the basket or ball on its downward flight to the basket, or while it is on the rim (or, in the NBA, while it is directly above the basket), a violation known as goaltending. If a defensive player goaltends, the attempted shot is considered to have been successful. If a teammate of the shooter goaltends, the basket is cancelled and the team loses possession.

## **Fouls**

An attempt to unfairly disadvantage an opponent through personal contact is illegal and is called a foul. These are most commonly committed by defensive players; however, they can be committed by offensive players as well. Players who are fouled either receive the ball to pass inbounds again, or receive one or more free throws if they are fouled in the act of shooting, depending on whether the shot was successful. One point is awarded for making a free throw, which is attempted from a line 4.5 metres (15 feet) from the basket.

There is some discretion with the referee when calling a foul — referees consider if there was unfair advantage gained, e.g. if a player were to gain possession unfairly, sometimes making fouls controversial calls. The calling of a foul can vary between games, leagues and even between referees.

A player or coach who shows poor sportsmanship, for instance, by arguing with a referee or by fighting with another player, can be charged with a technical foul. The penalty involves free throws and varies between leagues. Repeated incidents can result in disqualification. Blatant fouls with excessive contact or that are not an attempt to play the ball are called unsportsmanlike fouls (or flagrant fouls in the NBA) and incur a harsher penalty; in some rare cases a disqualifying foul will require the player to leave the playing area, known as an ejection.

If a team surpasses a preset limit of team fouls in a given period (quarter or half) – four for international and NBA games – the opposing team is awarded one or two free throws on all subsequent fouls for that period, the number depending on the league. A player who commits five fouls, including technical fouls, in one game (six in some professional leagues,

including the NBA) is not allowed to participate for the rest of the game, and is described as having "fouled out".

## **Common techniques and practices**

### **Positions and structures**

Although the rules do not specify any positions whatsoever, they have evolved as part of basketball. During the first five decades of basketball's evolution, two guards, two forwards, and one center were used. Since the 1980s, more specific positions have evolved, namely:

1. point guard: organizes the team's offense by controlling the ball and making sure that it gets to the right player at the right time
2. shooting guard: creates a high volume of shots on offense; guards the opponent's best perimeter player on defense
3. small forward: often primarily responsible for scoring points via cuts to the basket and dribble penetration; on defense seeks rebounds and steals, but sometimes plays more actively than that
4. power forward: plays offensively often with his back to the basket; on defense, plays under the basket (in a zone defense) or against the opposing power forward (in man-to-man defense)
5. center: uses size, either to score (on offense) or to protect the basket closely (on defense)

The above descriptions are flexible. On some occasions, teams will choose to use a three guard offense, replacing one of the forwards or the center with a third guard. The most commonly interchanged positions are point guard and shooting guard, especially if both players have good leadership and ball handling skills.

There are two main defensive strategies: zone defense and man-to-man defense. Zone defense involves players in defensive positions guarding whichever opponent is in their zone. In man-to-man defense, each defensive player guards a specific opponent and tries to prevent him from taking action. Variations of these two main structures are also used.

Offensive plays are more varied, normally involving planned passes and movement by players without the ball. A quick movement by an offensive player without the ball to gain an advantageous position is a cut. A legal attempt by an offensive player to stop an opponent from guarding a teammate, by standing in the defender's way such that the teammate cuts next to him, is a screen or pick. The two plays are combined in the pick and roll, in which a player sets a pick and then "rolls" away from the pick towards the basket. Screens and cuts are very important in offensive plays; these allow the quick passes and teamwork which can lead to a successful basket. Teams almost always have several offensive plays planned to ensure their movement is not predictable. On court, the point guard is usually responsible for indicating which play will occur.



Defensive and offensive structures, and positions, are more emphasized in higher levels in basketball; it is these that a coach normally requests a time-out to discuss.

## **Shooting**

Shooting is the act of attempting to score points throwing the ball through the basket. While methods can vary with players and situations, the most common technique can be outlined here.

The player should be positioned facing the basket with feet about shoulder-width apart, knees slightly bent, and back straight. The player holds the ball to rest in the dominant hand's fingertips (the shooting arm) slightly above the head, with the other hand on the side of the ball. To aim the ball, the player's elbow should be aligned vertically, with the forearm facing in the direction of the basket. The ball is shot by bending and extending the knees and extending the shooting arm to become straight; the ball rolls off the finger tips while the wrist completes a full downward flex motion. When the shooting arm is stationary for a moment after the ball released, it is known as a follow-through; it is incorporated to maintain accuracy. Generally, the non-shooting arm is used only to guide the shot, not to power it.

Players often try to put a steady backspin on the ball to deaden its impact with the rim. The ideal trajectory of the shot is somewhat arguable, but generally coaches will profess proper arch. Most players shoot directly into the basket, but shooters may use the backboard to redirect the ball into the basket.

The two most common shots that use the above described set up are the set shot and the jump shot. The set shot is taken from a standing position, with neither foot leaving the floor, typically used for free throws. The jump shot is taken while in mid-air, near the top of the jump. This provides much greater power and range, and it also allows the player to elevate over the defender. Failure to release the ball before returning the feet to the ground is a traveling violation.

Another common shot is called the layup. This shot requires the player to be in motion toward the basket, and to "lay" the ball "up" and into the basket, typically off the backboard (the backboard-free, underhand version is called a finger roll). The most crowd-pleasing, and typically highest-percentage accuracy shot is the slam dunk, in which the player jumps very high, and throws the ball downward, straight through the hoop.

A missed shot that misses the basket completely is referred to as an air ball.

The best shooters combine great dedication, coordination, and confidence. Practice is essential to shoot at a high level. Getting open is also crucial; at the pro level, top shooters rarely miss when given an unguarded look at the basket.

## **Passing**

A pass is a method of moving the ball between players. Most passes are accompanied by a step forward to increase power and are followed through with the hands to ensure accuracy.

A staple pass is the chest pass. The ball is passed directly from the passer's chest to the receiver's chest. A proper chest pass involves an outward snap of the thumbs to add velocity and leaves the defense little time to react.

Another type of pass is the bounce pass. Here, the passer bounces the ball crisply about two-thirds of the way from his own chest to the receiver. The ball strikes the court and bounces up toward the receiver. The bounce pass takes longer to complete than the chest pass, but it is also harder for the opposing team to intercept (kicking the ball deliberately is a violation). Thus, players often use the bounce pass in crowded moments, or to pass around a defender.

The overhead pass is used to pass the ball over a defender. The ball is released while over the passer's head.

The outlet pass occurs after a team gets a defensive rebound. The next pass after the rebound is the outlet pass.

The crucial aspect of any good pass is being impossible to intercept. Good passers can pass the ball with great accuracy and touch and know exactly where each of their teammates like to receive the ball.

## **Dribbling**

Dribbling is the act of bouncing the ball continuously, and is a requirement for a player to take steps with the ball. To dribble, a player pushes the ball down towards the ground rather than patting it; this ensures greater control.

When dribbling past an opponent, the dribbler should dribble with the hand farthest from the opponent, making it more difficult for the defensive player to get to the ball. It is therefore important for a player to be able to dribble competently with both hands.

Good dribblers (or "ball handlers") tend to bounce the ball low to the ground, reducing the travel from the floor to the hand, making it more difficult for the defender to "steal" the ball. Additionally, good ball handlers frequently dribble behind their backs, between their legs, and change hands and directions of the dribble frequently, making a less predictable dribbling pattern that is more difficult to defend.

A skilled player can dribble without watching the ball, using the dribbling motion or peripheral vision to keep track of the ball's location. By not having to focus on the ball, a player can look for teammates or scoring opportunities, as well as avoid the danger of someone stealing the ball from them.

## Height

At the professional level, most male players are above 1.90 meters (6 ft 3 in) and most women above 1.70 meters (5 ft 7 in). Guards, for whom physical coordination and ball-handling skills are crucial, tend to be the smallest players. Almost all forwards in the men's pro leagues are 2 meters (6 ft 6 in) or taller. Most centers are over 2.1 meters (6 ft 10.5 in) tall. The tallest players ever in the NBA, Manute Bol and Gheorghe Mureșan, were 2.31 m (7 ft 7 in). The tallest current NBA player is Yao Ming, who stands at 2.29 m (7 ft 6 in).

The shortest player ever to play in the NBA is Muggsy Bogues at 1.60 meters (5 ft 3 in). Other short players have thrived at the pro level. Anthony "Spud" Webb was just 5 feet 7 inches (1.70 m) tall, but had a 42-inch (1.07 m) vertical leap, giving him significant height when jumping. The shortest player in the NBA today is Earl Boykins at 5 feet 5 inches (1.65 m).

## Variations and similar games

*Variations of basketball* are activities based on the game of basketball, using common basketball skills and equipment (primarily the ball and basket). Some variations are only superficial rules changes, while others are distinct games with varying degrees of basketball influences. Other variations include children's games, contests or activities meant to help players reinforce skills. Most of the variations are played in informal settings without referees or strict rules.

Perhaps the single most common variation is the half court game. Only one basket is used, and the ball must be "cleared" - passed or dribbled outside the half-court or three-point line - each time possession of the ball changes from one team to the other. Half-court games require less cardiovascular stamina, since players need not run back and forth a full court. Half-court games also raise the number of players that can use a court, an important benefit when many players want to play.

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## Ice hockey

*Ice hockey*, referred to simply as *hockey* in Canada and the United States, is a team sport played on ice. It is one of the world's fastest sports, with players on skates capable of going

high speeds on natural or artificial ice surfaces. The most prominent ice hockey nations are Canada, Czech Republic, Finland, Russia, Slovakia, Sweden and the United States. While there are 64 total members of the International Ice Hockey Federation, those seven nations have dominated ice hockey. Of the sixty medals awarded in men's competition at the Olympic level from 1920 on, only six did not go to one of those countries (or a former entity thereof, such as Czechoslovakia or the Soviet Union) and only one such medal was awarded above bronze. [1]

Ice hockey is most popular as a sport in areas that are sufficiently cold for natural, reliable seasonal ice cover. It is one of the four major North American professional sports, represented by the National Hockey League (NHL) at the highest level. It is the official national winter sport of Canada, where the game enjoys immense popularity. Six of the thirty NHL franchises are based in Canada, but Canadians currently outnumber Americans in the league by a ratio of almost three to one, and about thirty percent of the league's players are non-North Americans. The sport's popularity in the US is concentrated in certain regions, notably the Northeast, the Upper Midwest, and Alaska.

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## History

Games between teams hitting an object with curved sticks have been played throughout the world since prehistoric times. The word "hockey" has been used since the 16th century, but its etymology is uncertain. It may derive from the Old French word *hoquet*, shepherd's crook, but it may also derive from the Middle Dutch word *hokkie* which is the diminutive of *hok*, meaning literally shack or doghouse, but which in popular use meant goal. Many of these

games were developed for fields, though where conditions allowed, they were also played on icy conditions, as shown in 16th-century Dutch paintings where a number of townsfolk play a hockey-like game on a frozen canal.

European immigrants brought various versions of hockey-like games to North America, such as the Scottish sport of shinty, and the closely-related Irish sport of hurling. Where necessary these seem to have been adapted for icy conditions; for example, a colonial Williamsburg newspaper records hockey being played in a snow storm in Virginia. Both English- and French-speaking Canadians played hockey on frozen rivers, lakes, and ponds using cheese cutters strapped to their boots, and early paintings show hockey being played in Nova Scotia. There are claims that ice hockey was invented in Windsor, Nova Scotia and named after an individual, as in 'Colonel Hockey's game'[2]. Proponents of this theory point out that the surname Hockey exists in the district surrounding Windsor, though this is an unlikely coincidence. Author Thomas Chandler Haliburton wrote of boys from King's College School in Windsor playing "hurley on the ice" when he was a student there around 1800.[3]. These early games may have absorbed the physically aggressive aspects of what the Mi'kmaq Aboriginal First Nation in Nova Scotia called dehuntshigwa'es (lacrosse). The first game to use a puck rather than a ball took place in 1860 on Kingston Harbour, Ontario, involving mostly Crimean War veterans. In 1943, the Canadian Amateur Hockey Association declared Kingston the birthplace of hockey, based on a recorded 1886 game played between students of Queen's University and the Royal Military College of Canada. Subsequent research has shown numerous earlier examples of the game of hockey. The Society for International Hockey Research contends that an earlier game of hockey on ice occurred in Halifax in 1859, based on a Boston Evening Gazette article published that year. Furthermore, in 1843 a British Army officer in Kingston wrote "Began to skate this year, improved quickly and had great fun at hockey on the ice". More recently Sir John Franklin wrote in a letter in 1825 that "The game of hockey played on the ice was the morning sport" while on the Great Bear Lake during one of his Arctic expeditions. [4]

## **Foundation of the modern game**

The development of the modern game centred on Montreal. On March 3, 1875 the first organized indoor game was played there, as recorded in the Montreal Gazette. In 1877, McGill University students, James Creighton, Henry Joseph, Richard F. Smith, W.F. Robertson, and W.L. Murray codified seven ice hockey rules, and the first ice hockey club, McGill University Hockey Club, was founded in 1880. The game became so popular that it was featured for the first time in Montreal's annual Winter Carnival in 1883. In 1885, A.P. Low introduced the game to Ottawa. During the same year, a second club was formed at Oxford University and traditionally the first Varsity Match against Cambridge was thought to have been played in St. Moritz, Switzerland and won by the Dark Blues 6-0, though the first photographs and team lists date from 1895[1]. This continues to be the oldest hockey rivalry in history. In 1888, the new Governor General of Canada, Lord Stanley of Preston (whose sons and daughter became hockey enthusiasts), attended the Carnival and was so impressed with the hockey spectacle that he thought there should be a championship trophy for the

best team. The Stanley Cup was first awarded in 1893 to the champion amateur team in Canada, Montreal AAA, and continues to be awarded today to the National Hockey League's championship team. By this time there were almost a hundred teams in Montreal alone, and leagues throughout Canada. Also by 1893, Winnipeg hockey players incorporated cricket pads to better protect the goaltender's legs. They also introduced the "scoop" shot, later known as the wrist shot.

1893 was also the date of the first ice hockey matches in the U.S. at Yale University and Johns Hopkins University. The U.S. Amateur Hockey League was founded in New York City in 1896, and the first professional team, the Portage Lakers was formed in 1903 in Houghton, Michigan (though there had been individual professionals in Canada before this).

The five sons of Lord Stanley were instrumental in bringing ice hockey to Europe, beating a court team (which included both the future Edward VII and George V) at Buckingham Palace in 1895. By 1903 a five-team league had been founded. The Internationale de Hockey sur Glace (now the International Ice Hockey Federation) was founded in 1908 and the first European championships were won by Great Britain in 1910.

## **The Professional Era**

In North America, two openly professional leagues emerged: the National Hockey Association in 1910 and the Pacific Coast League shortly after. In 1914 these two leagues competed for the Stanley Cup before World War I forced a suspension in league activities. The National Hockey League was formed in November of 1917, when members of the former National Hockey Association were engaged in a dispute with one of their fellow owners over insurance proceeds. The NHA disbanded, and the new league began play in December of that year with four Canadian teams. The Pacific Coast League folded and in 1926 the NHL, now with ten teams, took control of the Stanley Cup and formed a Canadian and an American division.

With the growth of professionalism in Canada, a new challenge cup, the Allan Cup, was instituted for amateur players to replace the Stanley Cup. This led to the foundation of an amateur governing body, the Canadian Hockey Association, which entered the winning Canadian team for the first Olympic title in Antwerp in 1920.

Between the wars, British ice hockey grew rapidly with new ice rinks and an influx of Canadian players. A European competition was instituted, and in the 1936 Winter Olympics at Garmisch, Germany, Great Britain won the gold medal, imposing the first ever Olympic defeat on the Canadians. However, because of the disruption of World War II and a lack of suitable venues afterwards the sport faded rapidly. This contrasted with rapid growth elsewhere. The NHL doubled in size in 1968, and now has thirty teams and has reorganised itself several times.

On 16 February, 2005, the NHL became the first major professional team sport in North America to cancel an entire season because of a labor dispute. Play resumed again in the fall of 2005. During the dispute, a Canadian senior's league asked to play for the cup, but weren't allowed, in violation of the terms of the Stanley Cup's handover to the NHL. Subsequent to the 2004-05 strike the NHL and the Stanley Cup wardens reached an agreement whereby if

a future NHL season is cancelled, other teams may be allowed to challenge for the Stanley Cup.

The official museum for the NHL is the Hockey Hall of Fame in Toronto, Canada.

## **Equipment**

The hard surfaces of the ice and boards, pucks flying at high speed (over 160 kilometers per hour (100 mph) at times), and other players maneuvering (and often intentionally colliding, AKA checking) pose a multitude of inherent safety hazards. Besides ice skates and sticks, hockey players are usually equipped with an array of safety gear to lessen their risk of serious injury. This usually includes a helmet, shoulder pads, elbow pads, mouth guard, protective gloves, heavily padded shorts, sometimes known as Ice Pants, a 'jock' athletic protector, shin guards and sometimes a neck guard. Goaltenders wear masks and much bulkier, specialized equipment designed to protect them from many direct hits from the puck.

The hockey skate is usually made of a thick layer of leather or nylon to protect the feet and lower legs of the player from injury. Its blade is rounded on both ends to allow for easy maneuvering.

Youth and college hockey players are required to wear a mask made from metal wire or transparent plastic attached to their helmet that protects their face during play. Professional and adult players may instead wear a visor that protects only their eyes, or no mask at all; however, some provincial and state legislation require full facial protection at all non-professional levels. Rules regarding visors and face masks are mildly controversial at professional levels. Some players feel that they interfere with their vision or breathing, or encourage carrying of the stick up high in a reckless manner, while others believe that they are a necessary safety precaution.

In fact, the adoption of safety equipment has been a gradual one at the North American professional level, where even helmets were not mandatory until the 1980s. The famous goalie, Jacques Plante, had to suffer a hard blow to the face with a flying puck in 1959 before he could persuade his coach to allow him to wear a protective goalie mask in play.

## **Game**

Ice hockey is played on a hockey rink. During normal play, there are six players per side on the ice at any time, each of whom is on ice skates. There are five players and one goaltender per side. The objective of the game is to score goals by shooting a hard vulcanized rubber disc, the puck, into the opponent's goal net, which is placed at the opposite end of the rink. The players may control the puck using a long stick with a blade that is commonly curved at one end. Players may also redirect the puck with any part of their bodies, subject to certain restrictions. A player can angle their feet so the puck can redirect into the net, but there can be no kicking motion.

The other five players are typically divided into three forwards and two defencemen. The forward positions are named left wing, centre and right wing. Forwards often play together

as units or lines, with the same three forwards always playing together. The defencemen usually stay together as a pair, but may change less frequently than the forwards. A substitution of an entire unit at once is called a line change. Substitutions are permitted at any time during the course of the game, although during a stoppage of play the home team is permitted the final change. When players are substituted during play, it is called changing on the fly. A new NHL rule added in the 2005-2006 season prevents a team from changing their line after they ice the puck.

The boards surrounding the ice help keep the puck in play, and play often proceeds for minutes without interruption. When play is stopped, it is restarted with a faceoff. There are two major rules of play in ice hockey that limit the movement of the puck: offside and icing.

In most competitive leagues, each team may carry at most 23 players on its game roster, two of whom are typically goaltenders. North American professional leagues restrict the total number of skaters who may dress for a game to 18 or fewer.

The remaining characteristics of the game often depend on the particular code of play being used. The two most important codes are those of the International Ice Hockey Federation (IIHF) and of the North American National Hockey League (NHL). North American amateur hockey codes, such as those of Hockey Canada and USA Hockey, tend to be a hybrid of the NHL and IIHF codes, while professional rules generally follow those of the NHL.

## **Penalties**

A typical game of ice hockey has two to four officials on the ice charged with enforcing the rules of the game. There are typically two linesmen, who are responsible only for calling offside and icing violations, and one or two referees, who call goals and all other penalties.

In men's hockey, but not in women's, a player may use his hip or shoulder to hit another player if the player has the puck or is the last to have touched it. This use of the hip and shoulder is called body checking. Not all physical contact is legal -- in particular, most forceful stick-on-body contact, and hits from behind, are illegal. There are many infractions for which a player may be assessed a penalty. The governing body for United States amateur hockey has implemented many new rules to reduce the number stick-on-body occurrences, as well as other detrimental and illegal facets of the game (Zero Tolerance).

For most penalties, the offending player is sent to the penalty box and his team has to play without him and with one less man for a short amount of time, giving the other team what is popularly termed a power play. A two-minute minor penalty is often called for lesser infractions such as tripping, elbowing, roughing, high-sticking, too many players on the ice, illegal equipment, charging (leaping into an opponent), holding, interference, delay of game, hooking, or cross-checking. More egregious fouls of this type may be penalized by a four-minute double-minor penalty, particularly those which (inadvertently) cause injury to the victimized player. These penalties end either when the time runs out or the other team scores on the power play; in the case of a goal scored during the first two minutes of a double minor, the penalty clock is set down to two minutes upon a score (effectively expiring the first minor). Five-minute major penalties are called for especially violent instances of most minor infractions which result in intentional injury to an opponent, as well as for fighting,



checking from behind and spearing. Major penalties are always served in full; they do not terminate on a goal scored by the other team. The foul of 'boarding', defined as "check[ing] an opponent in such a manner that causes the opponent to be thrown violently in the boards" by the NHL Rulebook is penalised either by a minor or major penalty at the discretion of the referee, based on the violence of the hit.

Two varieties of penalty do not always require the offending team to play a man down. Ten-minute misconduct penalties are served in full by the penalized player, but his team may immediately substitute another player on the ice *unless* a minor or major penalty is assessed in conjunction with the misconduct (a two-and-ten or five-and-ten). In that case, the team designates another player to serve the minor or major; both players go to the penalty box, but only the designee may not be replaced, and he is released upon the expiration of the two or five minutes, at which point the ten-minute misconduct begins. In addition, game misconducts are assessed for deliberate intent to inflict severe injury on an opponent (at the officials' discretion), or for a major penalty for a stick infraction or repeated major penalties. The offending player is ejected from the game and must immediately leave the playing surface (he does not sit in the penalty box); meanwhile, if a minor or major is assessed in addition, a designated player must serve out that segment of the penalty in the box (similar to the above-mentioned "two-and-ten").

A player who is tripped by an opponent on a breakaway – when there are no defenders except the goaltender between him and the opponent's goal – is awarded a penalty shot, an attempt to score without opposition from any defenders except the goaltender. A penalty shot is also awarded for a defender other than the goaltender covering the puck in the goal crease, a goaltender intentionally displacing his own goal posts during a breakaway in order to avoid a goal, a defender intentionally displacing his own goal posts when there is less than two minutes to play in regulation time or at any point during overtime, or a player or coach intentionally throwing a stick or other object at the puck or the puck carrier and the throwing action disrupts a shot or pass play.

Officials also stop play for puck movement violations, such as using one's hands to pass the puck in the offensive end, but no players are penalized for these offenses. The sole exceptions are deliberately falling on or gathering the puck to the body, carrying the puck in the hand, and shooting the puck out of play in one's defensive zone (all penalized two minutes for delay of game).

Games are overseen by officials that are selected by the league for which they work. The most common officiating organization is USA Hockey, where referees are selected for games depending on their experience level (one, two, three, or four). Officials are divided into on-ice officials and off-ice officials.

## **Tactics**

An important defensive tactic is checking – attempting to take the puck from an opponent or to remove the opponent from play. Forechecking is checking in the other team's zone; backchecking is checking while the other team is advancing down the ice toward one's own goal. These terms usually are applied to checking by forwards. Stick checking, sweep checking, and poke checking are legal uses of the stick to obtain possession of the puck. Body

checking is using one's shoulder or hip to strike an opponent who has the puck or who is the last to have touched it.

Offensive tactics include improving a team's position on the ice by advancing the puck out of one's zone towards the opponent's zone, progressively by gaining lines, first your own blue line, then the red line and finally the opponent's blue line. Offensive tactics are designed ultimately to score a goal by taking a shot. When a player purposely directs the puck towards the opponent's goal, he or she is said to shoot the puck.

A deflection is a shot which redirects a shot or a pass towards the goal from another player, by allowing the puck to strike the stick and carom towards the goal. A one-timer is a shot which is struck directly off a pass, without receiving the pass and shooting in two separate actions. A deke (short for decoy) is a feint with the body and/or stick to fool a defender or the goalie. Headmanning the puck is the tactic of rapidly passing to the player farthest down the ice.

A team that is losing by one or two goals in the last few minutes of play may elect to pull the goalie; that is, removing the goaltender and replacing him or her with an extra attacker on the ice in the hope of gaining enough advantage to score a goal. However, this tactic is extremely risky, and often leads to the opposing team extending their lead by scoring a goal in the empty net.

Although it is officially prohibited in the rules, at the professional level fights are sometimes used to affect morale of the teams, with aggressors hoping to demoralize the opposing players while exciting their own, as well as settling personal scores. Both players in an altercation receive five-minute major penalties for fighting. The player deemed to be the "instigator" of an NHL fight is penalized an additional two minutes for instigating, plus a ten-minute misconduct penalty. This so-called instigator rule is highly controversial in NHL hockey: many coaches, sportswriters, players and fans feel it prevents players from effectively policing the objectionable behavior of their peers, which is often cleverly hidden from referees. They point to less extreme on-ice violence during the era before the rule was introduced. Toronto Maple Leafs owner Conn Smythe famously observed that "If you can't beat 'em in the alley you can't beat 'em on the ice."

## **Periods and overtime**

A game consists of three periods of twenty minutes each, the clock running only when the puck is in play. In international play, the teams change ends for the second period, again for the third period, and again after ten minutes of the third period. In many North American leagues, including the NHL, the last change is omitted.

Various procedures are used if a game is tied. In tournament play, as well as in the NHL playoffs, North Americans favour sudden death overtime, in which the teams continue to play 20 minute periods until a goal is scored. Up until the 1999-00 season regular season NHL games were settled with a single 5 minute sudden death period with 5 players (plus a goalie) per side, with the winner awarded 2 points in the standings and the loser 0 points. In the event of a tie, each team was awarded 1 point. From 1999-00 until 2005-06 the National Hockey League decided ties by playing a single five-minute sudden death overtime period with each team having 4 players (plus a goalie) per side to "open-up" the game. In the event

of a tie, each team would still receive 1 point in the standings but in the event of a victory the winning team would be awarded 2 points in the standings and the losing team 1 point. International play and several North American professional leagues, including the NHL (in the regular season), now use an overtime period followed by a penalty shootout. If the score remains tied after an extra overtime period, the subsequent shootout consists of three players from each team taking penalty shots. After these six total shots, the team with the most goals is awarded the victory. If the score is still tied, the shootout then proceeds to a sudden death (actually sudden victory) format. Regardless of the number of goals scored during the shootout by either team, the final goal recorded will give the winning team one more goal than the score at the end of regulation time. In the NHL if a game is decided by a shootout the winning team is awarded 2 points in the standings and the losing team is awarded 1. Ties no longer occur in the NHL.

## **Women's ice hockey**

Ice hockey is one of the fastest growing women's sports in the world, with the number of participants increasing 400 percent in the last 10 years.[5] While there are not as many organized leagues for women as there are for men, there exist leagues of all levels, including the National Women's Hockey League, Western Women's Hockey League, and various European leagues; as well as university teams, national and Olympic teams, and recreational teams. There have been nine IIHF World Women Championships.

The chief difference between women's and men's ice hockey is that bodychecking is not allowed in women's ice hockey. After the 1990 Women's World Championship, bodychecking was eliminated because female players in many countries do not have the size and mass seen in North American players. There are many who feel that the relative lack of physical play is a detriment to its popularity among the mainstream hockey public.

One woman, Manon Rhéaume, appeared as a goaltender for the Tampa Bay Lightning in preseason games against the St. Louis Blues and the Boston Bruins, and in 2003 Hayley Wickenheiser signed with the Kirkkonummi Salamat in the Finnish men's Suomi-sarja league. Several women have competed in North American minor leagues, including goaltenders Charline Labonté, Kelly Dyer, Erin Whitten, Manon Rhéaume, and forward Angela Ruggeiro.

## **Sledge hockey**

Sledge hockey is a form of ice hockey designed for players with physical disabilities in their lower bodies. The players ride double-bladed sledges using sticks which have a spike on one end for propulsion and a blade on the other end for directing the puck. The rules are very similar to IIHF ice hockey rules.

### **Sport description**

Sledge hockey is an innovative team sport that incorporates the same rules and discipline structure as regular ice hockey. In sledge hockey, players use their sticks not only to pass, stickhandle and shoot the puck but also to maneuver their sledges.

Canada is the most recognized international leader in the development of the sport of sledge hockey and equipment for players. Much of the equipment for the sport was first developed in Canada, such as sledge hockey sticks laminated with fiberglass, as well as aluminum shafts with hand carved insert blades and special aluminum sledges with regulation skate blades.

## **History of sledge hockey**

Sledge hockey was invented by three Swedish wheelchair athletes on a frozen lake at a rehabilitation centre in Stockholm in 1961. The game was not an instant success, and after only a couple of years of development, five teams competed for the Stockholm City Championship. The Swedish players subsequently introduced the sport to their Norwegian neighbors and regular matches between respective national teams ensued. Norway in turn introduced the sport to British wheelchair athletes. In the early 1980s one of the inventors, Rolf Johansson, a gold medal Paralympian in track wheelchair, gave one of his hockey sledges to Dick Loiselle, the former director of the 1976 Winter Olympics in Montreal. Mr. Johansson did so under the condition that Mr. Loiselle introduce sledge hockey in Canada.

As a result of rapid growth of the sport, Sledge Hockey of Canada (SHOC) was created in 1993 and given the mandate by the Government of Canada (Sport Canada) to be the national sport federation responsible to coordinate, develop and promote the sport of sledge hockey in Canada.

In 1994, sledge hockey was introduced as a demonstration sport at the Paralympic Winter Games in Lillehammer, Norway. The sport became a full medal event at the 1998 Winter Paralympics in Nagano, Japan.

## **International competition**

The annual men's Ice Hockey World Championships are highly regarded by Europeans, but they are less important to North Americans because they coincide with the Stanley Cup playoffs. Consequently, Canada and the United States have never been able to field their best possible teams because many of their players are playing for the Stanley Cup. Furthermore, for many years professionals were barred from play, so Canada and the United States were further hampered. Now that many Europeans play in the NHL, the world championships no longer represent the best of any nation's players.

Hockey has been played at the Winter Olympics since 1924 (and at the summer games in 1920). Canada won six of the first seven gold medals. The United States won their first gold medal in 1960. The USSR won all but two Olympic ice hockey gold medals from 1956 to 1988 and won a final time as the Unified Team at the 1992 Albertville Olympics. Since all players in the communist system were "amateurs," the USSR's elite national team was the best the

country had to offer, while the best Americans, Swedes, Finns, and Canadians were professionals and thus barred from Olympic competition. Nonetheless, U.S. amateur college players defeated the heavily favored Soviet squad on the way to winning the gold medal at the 1980 Lake Placid Olympics. This "Miracle on Ice" launched a surge of newfound popularity for a game about which many Americans had not cared much.

The 1972 Summit Series established Canada and the USSR as a major international ice hockey rivalry. It was followed by five Canada Cup tournaments, where the best players from every hockey nation could play. This tournament later became the World Cup of Hockey, played in 1996 and 2004. Canada won in 2004 and the U.S. in 1996. Since 1998, NHL professionals have played in the Olympics as well, so that the best in the world have had more opportunities to face off.

There have been nine women's world championships, beginning in 1990. Women's hockey has been played at the Olympics since 1998. Currently Canada and the US dominate the world scene. All world championship and Olympic finals have involved at least one of the two countries. The 2006 Winter Olympics marks the first world or Olympic championship final that did not involve both countries.

## **Hockey in popular culture**

Like all of the major sports, hockey plays a major part in American popular culture. Though it is the least popular of the four professional sports in the US (football, baseball, basketball, and hockey), a number of notable Hollywood films have been made about hockey. Notable hockey films include *Slap Shot* (1977), *The Mighty Ducks* (1992, successful enough to spawn two sequels and a NHL team named after the movie), and *Miracle* (2004). The first two are fictional comedies; the last is a drama based on the true story of the 1980 "Miracle on Ice" USA Olympic gold medal team. Other Hollywood hockey films include *Youngblood* and *Mystery, Alaska*. Many other films are less hockey-oriented but nonetheless prominently involve the sport. Both *Happy Gilmore* and *The Cutting Edge* center around failed hockey players using their talents for other sports (golf and figure skating, respectively).

Hockey also frequently shows up in American television, particularly in shows set in the colder regions of the US such as the Northeast. One of the recurring characters on *Cheers* was Eddie LeBec (played by Jay Thomas), a French-Canadian Boston Bruins goalie who married cast regular Carla Tortelli. LeBec later was cut from the NHL and joined a travelling ice show; the character was eventually killed off. One memorable episode of *Seinfeld*, "The Face Painter", involves the antics of Elaine's face-painting boyfriend Puddy, a rabid New Jersey Devils fan, and Jerry's stubborn refusal to thank an acquaintance for New York Rangers playoff tickets after the game when he had already thanked him numerous times beforehand. In *NYPD Blue*, the character of PA Donna Abandando, played by Gail O'Grady and a love interest of Detective Greg Medavoy in season 3, was a noted New York Rangers fan, having previously dated one of the players. Her Rangers pennant famously hung over her desk at the front of the squad room. Actor Richard Dean Anderson has incorporated his personal love of hockey into two of his lead characters: *MacGyver*, and *Stargate SG-1*'s Jack O'Neill. In an episode of *The Simpsons*, "Lisa on Ice", Bart is the star of his peewee hockey team, *The Mighty Pigs*, coached by Chief Wiggum. Lisa is eventually forced to become a

goaltender on an opposing team, The Kwik-E-Mart Gougers coached by Apu, to avoid a failing grade in gym, and she blossoms from a nervous wreck to an intimidating star. Eventually, the two teams play each other. More recently, the FX show Rescue Me which stars Denis Leary, has featured hockey games as an integral part of several episodes; Hockey Hall of Fame and former Boston Bruins forward Cam Neely has had cameos. Leary's character plays in the FDNY vs. NYPD hockey game.

Because of hockey's popularity in Canada, it is considered one of the most important elements of Canadian pop culture. It features very prominently in homegrown television and movies. Moreover, some of the actors in American Hollywood hockey movies are Canadian.

## **Attendance Records**

The largest crowd to ever watch an ice hockey game in person occurred on Saturday October 6, 2001 on the campus of Michigan State University in East Lansing, Michigan, United States. "The Cold War" was played between archrivals Michigan State University and the University of Michigan in which 74,544 packed Spartan Stadium (an American college football stadium) to watch the Spartans and Wolverines skate to a 3-3 tie. Two three hundred piece marching bands were present on field and the game was internationally televised.

### **The Heritage Classic**

The largest crowd to ever watch an NHL game was during the Heritage Classic when 57,167 people watched the Edmonton Oilers battle the Montreal Canadiens. Montreal edged Edmonton 4-3. One of the most memorable things about this game was Canadiens' goaltender Jose Theodore's toque. There was also an oldtimers game before which pitted the alumni of the Oilers against a squad of former Canadiens. This is the only alumni game in which Wayne Gretzky has played since retiring, and he maintains it will also be the last.

## **Number of registered players by Countries**

Country	Players	% of Population
Canada	574,125	1.76%
United States	485,017	0.16%
Russia	77,702	0.05%
Czech Republic	72,075	0.7%
Sweden	65,613	0.7%
Finland	52,597	1.0%
Germany	25,934	0.03%
Slovakia	12,375	0.23%
Denmark	4,255	0.075%
Belarus	2,850	0.02%
Latvia	2,740	0.12%
Kazakhstan	1,800	0.01%
Ukraine	1,728	0.003%
Slovenia	980	0.05%

## Notes

- ^ Olympic Ice Hockey - The Complete Medal List. Retrieved on February 18, 2006.  
accessyear=2006}}
- ^ Garth Vaughan, *The Puck Stops Here: The origin of Canada's great winter game*, Fredericton: Goose Lane Editions, 1996, p. 23.
- ^ Birthplace of Ice Hockey. Retrieved on April 15, 2006.
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## Rugby

*Rugby football* refers to sports descended from a common form of football developed at Rugby School in England. The two major sports are *rugby league* and *rugby union*. American football and Canadian football also originated from Rugby football.

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## Rugby league and rugby union

*Rugby league* is played both as a professional and amateur sport in Ireland, France, Great Britain, Australia and New Zealand. It is regarded as the national sport of Papua New Guinea. There are semi-professional and amateur competitions of rugby league which take place in France, Russia, Wales, Scotland, Ireland, Serbia, Lebanon, South Africa, Japan, Canada, the United States, Fiji, Cook Islands and Tonga.

*Rugby union*, also a professional and amateur game, is dominated by eight "major" unions: France, Australia, England, Ireland, New Zealand, South Africa, Wales and Scotland. Rugby union is a major sport played nationwide in each of these countries. Rugby union is the national sport in New Zealand and Wales.

Numerous "minor" unions include Argentina, Canada, Fiji, Georgia, Italy, Japan, Namibia, Romania, Samoa, Spain, Tonga, the United States and Uruguay. In Malaysia, rugby union is played by campus students. Rugby union ranks as the national sport of Pacific countries such as Tonga, Fiji, and Samoa.

Many of the rugby league positions have similar names and requirements to rugby union positions but there are no flankers in rugby league.

An old saying goes "football is a gentleman's game played by ruffians, and rugby is a ruffian's game played by gentlemen". In most rugby-playing countries, *rugby union* is widely regarded as an establishment, historically amateur, sport: many private schools and grammar schools play rugby union. By contrast, *rugby league* has traditionally the reputation of a working class, professional, pursuit. A contrast to this ideology is evident in the neighbouring unions of England and Wales. In England the sport is very much associated with the public schools system. In Wales Rugby is associated with small village teams consisting of coal miners and other industrial workers playing on their days off.

Because of the nature of the games (almost unlimited body contact with little or no padding), the rugby world frowns on unsporting behaviour, since even a slight infringement of the rules may lead to serious injury or even death. Because of this, governing bodies enforce the rules strictly.

## Rules

Distinctive features common to both rugby games include the oval ball and the ban on passing the ball forwards, so that players can gain ground only by running with the ball or by kicking it.

Set-pieces of the union code include the scrum, where packs of opposing players push against each other for possession, and the lineout, where parallel lines of players from each team, arranged perpendicular to the touch-line (the side line) attempt to catch the ball thrown from touch (the area behind the touch-line).

In the league code, the scrum still exists, but with greatly reduced importance. Set pieces are generally started from the play the ball situation which has meant that rugby league has evolved into faster and more attacking game with a greater emphasis on running with the ball in hand, passing and scoring tries.

The main difference between the two games, besides league having teams of 13 players and union of 15, comes after tackles. Union players contest possession following the tackle: depending on the situation, either a ruck or a maul occurs. League players do not contest possession: play is continued with a play-the-ball.

Scoring in both games occurs by achieving either a try or a goal. A try (at goal) involves grounding the ball (touching the ball to the ground) over the goal line at the opponent's end of the field. A goal results from kicking the ball over the crossbar between the upright goalposts. Three different types of kick at goal can score points: the goal kick after a try has been awarded (which if successful becomes a conversion); the drop kick; and the penalty kick. The points awarded for each vary between the games.

## History

*See also: Football*



The legendary story/myth about the origin of Rugby football—whereby a young man named William Webb Ellis "took the ball in his arms [i.e. caught it] and ran," showing "a fine disregard," while playing Rugby School's already distinctive version of football (not to be confused with association football, which was codified much later) in 1823—has little evidence to support it. Pundits have dismissed the story as unlikely since it was first given the School's seal of approval following an official investigation by the Old Rugbeian Society in 1895. However, the story has entered into legend, and the trophy for the Rugby Union World Cup bears the name of "Webb Ellis" in his honour (as does Ellis Park in Johannesburg, a major international rugby union stadium), and a plaque at the School commemorates the "achievement".

Various kinds of football have a long tradition in England and football games had probably taken place at Rugby School for 200 years before three boys published the first set of written rules (in 1845). At the time, a set of rules would be agreed between two teams before a match. Teams which competed against each other regularly would tend to agree to play similar rules.

Rugby football has strong claims to the world's first and oldest football club: the Guy's Hospital Football Club, formed in London in 1843, by old boys from Rugby School. (Although there is still a rugby club attached to Guy's Hospital, so few records of the original club survive that it is impossible to determine if there is any continuity.) Around the Anglosphere, a number of other clubs were formed to play games based on the Rugby School rules. One of these, Dublin University Football Club, founded in 1854, is probably the world's oldest surviving football club in any code. Other old rugby clubs include: Edinburgh Academical Football Club (1857/58], the oldest documented club in the UK); Blackheath Rugby Club (allegedly founded in 1858, although some sources suggest that the club did not start playing rugby football until 1862); and Liverpool St Helens Football Club (1858).

The Blackheath club also features in the history of association football (soccer): as Blackheath Football Club, it became a founder member of the Football Association (FA) in 1863. However, Blackheath withdrew from the FA just over a month after the initial meeting, when it became clear that the FA would not agree to rules which allowed running with the ball in hand (a fundamental part of rugby) and hacking (legal tripping). Other rugby clubs followed this lead and did not join the FA. Interestingly the clubs that did not join the FA and continued to play Rugby Football dropped the tripping rule and outlawed it.

By 1870 about 75 clubs played variations of the Rugby School game in Britain. Clubs playing varieties of the Rugby School game also existed in Ireland, Australia, Canada and New Zealand. However, they had no generally accepted set of rules: the clubs continued to agree rules before the start of each game. On January 26, 1871, 22 clubs founded the Rugby Football Union (RFU), leading to the standardisation of the rules for all rugby clubs in England. Soon most countries with a sizeable rugby community had formed their own national unions.

Games based on rugby football became immensely popular in North America. However, by the 1880s these games had rapidly diverged from the laws of rugby used in most countries, and they became instead the basis of both Canadian football and American football. Nevertheless, the origins of the North American codes of football left lingering traces: the Canadian Football League's predecessor originally bore the name of the Canadian Rugby Football Union from its founding in 1884. Canadian football, was frequently known as

"rugby" until the middle of the 20th century. On the setting up of the modern CFL in the late 1950s, it assumed control of the Grey Cup from an organisation that still called itself the Canadian Rugby Union (now Football Canada, the country's amateur umbrella organisation for Canadian football). Only in 1929 was the Canadian national rugby union formed — the predecessor of Rugby Canada.

In 1886, the International Rugby Board (IRB) became the world governing body and law-making body for rugby. The RFU recognised it as such in 1890.

The 1890s saw a clash of cultures between working men's rugby clubs of northern England and the southern clubs of gentlemen, a dispute revolving around the nature of professionalism within the game. On August 29, 1895, 21 clubs split from the RFU and met at the George Hotel in Huddersfield in Yorkshire to form the Northern Rugby Football Union, commonly called the Northern Union.

For clarity and convenience it became necessary to differentiate the two codes of rugby. The code played by those teams who remained in national organisations which made up the IRB became known as Rugby Union. The code played by those teams that played "open" rugby and allowed professionals became known as Rugby League.

NRFU rules gradually diverged from those of Rugby Union, although the name Rugby League did not become official until the Northern Rugby League was formed in 1901. The name Rugby Football League dates from 1922.

A similar schism opened up in Australia and in other rugby-playing countries. Initially Rugby League in Australia operated under the same rules as Rugby Union. But after a tour by a professional New Zealand team in 1907 of Australia and Great Britain, and an Australian Rugby League tour of Great Britain the next year, Rugby League teams in the southern hemisphere adopted Rugby League rules.

In 1948 a meeting in Bordeaux set up the Rugby League International Federation (RLIF) to oversee Rugby League world wide. From this meeting the first "Rugby World Cup" was played in France in 1954.

On August 26, 1995 the IRB declared Rugby Union an "open" game and removed all restrictions on payments or benefits to those connected with the game.

## **Culture**

Because of its long adherence to amateurism, an ethic considered to have discouraged working class players, rugby union often has a reputation as a middle-class and upper-class game. Exceptions to this occur in New Zealand, Wales, the Borders region of Scotland, County Limerick in Ireland, the county of Cornwall in England, and the Pacific Islands, where rugby union remained popular in working class communities. Rugby league retains great popularity among working-class people in the English counties of Yorkshire and Lancashire, and in the Australian states of New South Wales and Queensland.

In the United Kingdom, rugby union fans sometimes use the term "rugger" as an alternative name for the sport. Those considered to be heavily involved with the rugby union lifestyle — including heavy drinking and striped jumpers — sometimes identify as "rugger buggers". Retired rugby union players who still turn up to watch, drink and serve on committees rank as "alickadoos" or, less kindly, as "old farts".

Rugby league supporters sometimes call themselves "treizistes", reflecting the French title of their sport (rugby à treize). The epithet occurs almost universally in France, but its use has also spread to English-speaking countries.

Australians fall into three camps when it comes to naming the two codes of rugby: in New South Wales and Queensland, which represent over half the population, people usually refer to rugby union simply as "union" and to rugby league simply as "rugby league" or "football". (The same perceived class barrier as exists between the two games in England also occurs in these two states, fostered by rugby union's prominence and support at elite private schools). However, in the southern states, such as Victoria, South Australia, Western Australia, Tasmania, "football" means Australian Rules Football, and there is no popular differentiation between the two kinds of "rugby". Areas in which all three codes are popular, especially the Australian Capital Territory, the Northern Territory, and the Riverina, generally use the names "league", "union" and "Aussie rules" to avoid confusion.

In Australia a popular show called "The Footy Show" screens weekly during the NRL season.

New Zealanders generally refer to rugby union simply as either "football" or "rugby" and to rugby league as "rugby league", "football" or "league". In New Zealand, playing football has a reputation as the epitome of manliness for both Mori and Pkeh (non-Mori), as symbolised by a haka (war dance) at the start of important games. Kiwis see rugby as the accepted substitute for military heroism and an excellent training ground for soldiering. If (as the Duke of Wellington allegedly said) Britain won the Battle of Waterloo on the playing-fields of Eton, New Zealand long saw its role in the British Empire as intimately connected with the football field. Popular Kiwi mythology sees the encouragement of New Zealand rugby in the late 19th and early 20th centuries as the Imperial reaction to declining fitness in Britain's industrial slums. In the county of Cornwall in England, it is still the norm for boys to play rugby (union) not 'soccer' and when the team occasionally gets to Twickenham for the Counties final it will be filled with supporters wearing the black and gold of the Cornish colours.

## Games descended from Rugby School rules

- Rugby football
    - Rugby League
    - Rugby Union
    - Rugby Sevens
    - Touch Rugby — a variant of rugby league replacing tackles with a touch.
- Also call Touch Football or Touch Footy.
- Tag Rugby — a form of non-contact rugby league using a velcro tag to indicate a tackle.
    - OzTag — a form of Tag Rugby played in Australia.
  - Wheelchair Rugby, also Wheelchair power tag rugby and Wheelchair rugby league

- American football — called "football" in the United States, and "gridiron" or "gridiron football" in Australasia.
  - Arena football — an indoor version of American football
  - Touch football — non-tackle American football.
    - Flag football — non-tackle American football, like *touch football* using a token to indicate a tackle.
- Canadian football — called simply "football" in Canada.
  - Canadian flag football — non-tackle Canadian football.

(Australian rules football was based partly on Rugby football, and partly on several other codes of football.)

## See also

- Football

# Snooker

*Snooker* is a billiards sport that is played on a large (12' × 6') baize-covered table with pockets in each of the four corners and in the middle of each of the long side cushions. It is played using a cue, one white ball (the cue ball), 15 red balls (worth 1 point each) and 6 colours: a yellow (2 points), green (3 points), brown (4 points), blue (5 points), pink (6 points) and black ball (7 points). A player wins a frame of snooker by scoring the most points, using the cue ball to pot the balls in the manner described below. A match consists of an agreed number of frames. Snooker is particularly popular in English-speaking and Commonwealth countries, and the Far East.

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## History

The game of billiards dates back to the 15th century but snooker is a more recent invention. In the late 19th century billiards games were popular among British army officers stationed in India, and players used to experiment with variations on the game. Due to the fact that billiards was a two-player game, multi-player variations such as life pool (where different coloured balls were used as cue and/or object balls, depending on the situation or number of players) and pyramid pool (fifteen red balls racked in a triangle where each player received a point per ball potted) became popular. Black pool was a form of pyramid pool that took the black ball from a life pool set so a player could pot a red then the black for more points. The most commonly accepted story is that, at the officers' mess in Jabalpur some time in 1875, a Colonel Sir Neville Chamberlain suggested adding coloured balls to black pool so that the variation featured fifteen reds, a yellow, green, pink and black (blue and brown were added some years later). The word 'snooker' was army slang for a first-year cadet. During a game a cadet missed a shot and Chamberlain said to him: "Why you're a regular snooker!" After explaining the meaning to his fellow peers, Chamberlain added that they were perhaps all snookers at this game. The term was adopted for the new variation and has been in use ever since.[1] British billiards champion John Roberts travelled to India in 1885, where he met Chamberlain. Chamberlain explained the new game to him, and Roberts subsequently introduced it to England.

Snooker championships date back to 1916. In 1927, Joe Davis helped establish the first professional world championship, and won its prize of £6.10s (£6.50, equivalent to about £200 or \$348 today). He went on to win every subsequent world championship until 1946, when he retired from tournament play. The trophy he donated all those years ago is still awarded to the world champion.

A dispute between the professionals and the Billiards Association & Control Council (BA&CC, the game's then-governing body) meant that there were only two entrants for the 'official' world championship – Horace Lindrum (Australia) beat Clark McConachy (New Zealand). However, the professionals organised their own 'world championship' (termed the Professional Match-Play Championship) between 1952 and 1957, and the winners of this version are generally accepted as the World Champion. Nevertheless, it is Lindrum's name that is engraved on the familiar trophy.

Snooker suffered a decline in the 1950s and 1960s, so much so that no tournament was held from 1958 to 1963. In 1969, the BBC, in order to demonstrate their new colour broadcasts, launched a new snooker tournament, called Pot Black. The multi-coloured game, many of whose players were just as colourful, caught the public interest, and the programme's success wildly exceeded expectations. Ted Lowe, the commentator famous for his whispering delivery, was the driving-force behind Pot Black, which survived until well into the 1980s.

In the early 1970s, the world championship received little TV coverage. However, in 1976 it was featured for the first time and very quickly became a mainstream professional sport. World rankings were introduced in 1977. Money poured into the game, and a new breed of player, typified by Steve Davis, young, serious and dedicated, started to emerge. The first maximum break of 147 in televised tournament was made by Davis against John Spencer in

the Lada Classic, Oldham, in 1982. The first 147 at the World Championships (Crucible, Sheffield) was by the Canadian Cliff Thorburn. The top players became sterling millionaires. There was even a comic snooker song in the pop charts: Snooker Loopy by Chas and Dave, featuring contributions from a host of players including Steve Davis and Willie Thorne.

Perhaps the peak of this golden age was the World Championship of 1985, when 18.5 million people (one third of the population of the UK) watching BBC2 saw Dennis Taylor lift the cup after a mammoth struggle against Davis that finished with the potting of the last possible ball (with the exception of a re-spotted black), at 00:20 after a gruelling Sunday night. The 2006 final has since surpassed this with Graeme Dott beating Peter Ebdon at 00:53. To this day, polls rank the 1985 World Snooker Championship final amongst UK TV's most memorable all-time moments. With seven wins in the modern era, Stephen Hendry is often considered the most successful player ever.

Snooker remains immensely popular in the United Kingdom, second only to football amongst television viewers. Indeed, it has recently been referred to as "the most mesmerising sport on television" by a BBC advert for their coverage of the 2006 World Championships.

## **Governing body**

The World Professional Billiards and Snooker Association (WPBSA), founded in 1968 as the Professional Billiard Players' Association, is the governing body for the professional game. Its subsidiary, World Snooker, organises the professional tour. The organisation is based in Bristol, England. Some consider that the world governing body has been racked by in-fighting for a number of years.

The amateur game is governed by the International Billiards and Snooker Federation (IBSF).

## **The game**

### **The Table**

Snooker is played on a rectangular 6' by 12' (about 1.83m by 3.66m) table with six pockets, one at each corner and one in the middle of each long side. At one end of the table (the 'Baulk End') is the so-called 'baulk line', which is 29 inches from the baulk end cushion. A semicircle of radius  $11\frac{1}{2}$  inches, called the "D", is drawn behind this line, centred on the middle of the line. The cushion on the other side of the table is known as the 'Top Cushion'.

At the beginning of a frame, the balls are set up in the arrangement shown. The six colours (a term referring to all coloured balls but the white and the reds) are placed on their own spots. On the baulk line, looking up the table from the 'baulk end', the yellow ball is located where the "D" meets the line on the right, the green ball where the "D" meets the line on the left, and the brown ball in the middle of the line. This order is often remembered using the mnemonic 'God Bless You', the first letter of each word being the first letter of the three colours. At the exact centre of the table sits the blue ball. Further up the table is the pink ball, which sits midway between the blue spot and the top cushion, followed by the red balls, arranged in a tightly-packed triangle behind the pink (the apex must be as close as possible to the pink ball without touching it). Finally, the black ball is placed on a spot  $12\frac{3}{4}$  inches from the top cushion.

Because of the large size of "full sized" snooker tables, smaller tables are common in domestic situations and other situations where space is limited. These are often around 6 feet in length, and all the dimensions and markings are scaled down accordingly. The balls used are sometimes also scaled down.

### **Objective**

The objective of the game of snooker is to strike the white cue ball with a cue in the direction of other object-balls and to pot these object balls in one of the six pockets. This must be done according to the rules of the game, which are described below. By potting object balls points can be scored. The player who scores most points wins the frame, and the player who wins most frames wins the match.

### **A Snooker Match**

A snooker match usually consists of an odd fixed number of frames. A frame begins with setting up the balls as described above. A frame ends when all balls are potted, or when one of the players gives up because he is too far behind in score to equal or beat the score of the other player.

A match ends when one of the players has won the majority of the set number of frames and the other player can therefore not equal this. For example, when a match consists of 19 frames, the match ends when one of the players has reached 10 frames.

## **Gameplay**

At the beginning of each frame the balls are set up by the referee as explained. This will be followed by a "break-off" shot, on which the players take turns. At the break-off, the white cue ball can be placed anywhere inside the "D", although it is common for players to start by placing the ball on the line, between the brown ball and either the green or yellow ball.

Players take turns in visiting the table. When one player is at the table, the other cannot play. A "break" is a number of points scored by one player in one single visit to the table. A player's turn and break end, when he fails to pot a ball, when he does something against the rules of the game, which is called a foul or when a frame has ended.

When a player strikes the white, according to the rules of the game the white can only first hit certain object balls. If the white first hits another ball, this is considered a foul. The ball or balls that can be hit first by the white in a certain stroke are called the ball(s)-on for that particular stroke. The balls-on are the only balls that can be potted by a player. The player receives points for this. If another ball not-on is potted, this is considered a foul.

The game of snooker generally consists of two phases. The first phase is the situation in which there are still red balls on the table. In the first phase, at the beginning of a player's turn, the balls "on" are all remaining red balls. The player must therefore attempt to first hit and pot one or more red balls. For every red ball potted, the player will receive 1 point. When a red has been potted, it will stay off the table and the player can continue his break. If no red has been potted or a foul has been made, the other play will come into play.

In case one or more red balls have been potted, the player can continue his break. This time one of the six colours (yellow, green, brown, blue, pink and black) is the ball "on". Only one of these can be the ball "on" and the rules of the game state that a player must nominate his desired colour to the referee although often it is clear which ball the striker is playing and it is not necessary to nominate.

When the nominated colour is potted, the player will be awarded the correct number of points (Yellow, 2; Green, 3; Brown, 4; Blue, 5; Pink, 6; Black, 7). The colour is then taken out of the pocket by the referee and placed on its original spot. If that spot is covered by another ball, the ball is placed on the highest available spot. If there is no available spot, it is placed as close to its own spot as possible in a direct line between that spot and the top cushion, without touching another ball. If there is no room this side of the spot, it will be placed as close to the spot as possible in a straight line towards the bottom cushion, without touching another ball.

Because only one of the colours is the ball "on", it is a foul to first hit multiple colours (and reds) at the same time, or pot more than one colour (or red).

If a player fails to pot a ball "on", it being a red or nominated colour, the other player will come into play and the balls "on" are always the reds, as long as there are still reds on the table.



The alternation between red balls and colours ends when all reds have been potted and the second phase begins. In this phase, all colours have to be potted in the correct order (yellow, then green, then brown, then blue, then pink, then black). They also become the ball "on" in that order. During this phase, when potted, the colours stay down and are not replaced on the table, unless a foul is made when potting the colour and the colour is respotted.

When all colours are potted, the frame is over and the player who has scored most points has won the frame. When only the black remains, the difference in score is more than the 7 points the black is worth, and the striker decides that the 7 points of the black are of no value to him or his break, the frame is also ended. When a foul is made on the black, the frame also ends.

## Fouls

A foul is a shot or action by the striker which is against the rules of the game.

When a foul is made during a shot, the player's turn is ended and he will receive no points for the foul shot. The other player will receive penalty points.

Common fouls are:

- first hitting a ball "not-on" with the cue ball
- potting a ball "not-on"
- potting the white (in-off)
- hitting another ball than the white with the cue
- making a ball land off the table
- touching a ball with something else than the tip of the cue
- playing a "push shot" - a shot where the cue, cue ball and object ball are in simultaneous contact
- playing a "jump shot", which is where the cue ball leaves the bed of the table and jumps over a ball (even if touching it in the process) before first hitting another ball
- playing a shot with both feet off the ground

Whereas in other games, such as pool, if the cue ball is touched with the tip of the cue when it is in baulk after being potted then a foul is committed, in snooker if the cue ball is touched with the tip after being potted and in the D, a foul is not committed as long as the referee is satisfied that the player was only positioning the ball, and not playing, or preparing to play, a shot.

When a foul is made, the other player will receive penalty points. Penalty points are at least 4 points and at most 7 points. The number of penalty-points is the value of the ball "on", or any of the "foul" balls, whichever is highest. When more than one foul is made, the penalty is not the added total, but the most highly valued foul.

The foul of not hitting the ball "on" first is the most common foul. The name of the game originally comes from the verb "snooker" which means to bully, or to put in trouble. Players can put other players in trouble by making sure they can not hit the ball(s) "on" in a direct line from the next shot. This is called a "snooker".

Since players receive points for fouls by their opponents, snookering your opponent is a possible way to win a frame when potting all the balls on the table would be insufficient for you to win.

If a player commits a foul, and his opponent considers that position left is unattractive, he may request that the offender play again from that position.

If a foul has been committed by not hitting a ball "on" first, or at all, and the referee judges that the player has not made the best possible effort to hit a ball "on", and neither of the players are in need of snookers to win the frame, then 'foul, and a miss' is called and the other player may request that all balls on the table are returned to their position before the foul, and the opponent play the shot again. (In top class play, this will usually require only the cue ball and a couple of other balls to be moved). It should be noted that this rule is often applied less stringently, if at all, in amateur matches.

When a player leaves an opponent unable to hit both sides of at least one ball "on" after a foul, the other player will receive a free ball. This means any colour can be nominated and played as the ball "on". The number of points for potting the free ball is not the worth of the nominated ball but of the original ball "on". For example, if the ball "on" is a red, and the free ball is a pink, the player will receive one point for potting the pink. After potting the free ball as a red, a player can nominate and pot a colour as usual.

## **The end of a frame**

A frame normally ends in one of four ways:

1. a concession, when one player gives up due to being too far behind to have a realistic chance of winning the frame.
2. when the pink is potted and the difference between the players' scores is more than 7 points. The frame is over and, while the striker may pot the black (for a clearance break, for example), no further shots are allowed.
3. the black is potted AND the 7 points scored puts one player ahead
4. a foul on the black AND the 7-point penalty puts one player ahead. (It is sometimes wrongly assumed that play continues after a foul on the black if there is then less than seven points in the scores. This is not the case: the player who has made such a foul has lost the frame.)

If, however, the black is fouled and the 7-point penalty brings the scores level, the black is respotted. Play continues from in-hand, with the players tossing a coin for the choice of playing first or making the opponent play first. Potting or fouling a respotted black ends the frame.

Occasionally, but very rarely, a player will forfeit a frame due to a failure to hit a ball "on" three times in a row (provided the player was not snookered, in which case the player has as many opportunities as is required); and should a player refuse to take his turn at any stage, the referee would have the right to declare the frame over. This would be a most unlikely occurrence.

## **Highest break**

The highest break that can be made under normal circumstances is 147. To achieve that, the player must pot all 15 reds, with the black after every red, followed by potting the six remaining colours. This "maximum break" of 147 rarely occurs in match play.

If an opponent fouls before any balls are potted, and leaves the player a free ball, the player can then nominate a colour and play it as a red ball. Then, black can be nominated as the next colour. This means it is actually possible to score the value of 16 "reds" and blacks, which equals 155 points. This has never been done. The highest break in tournament play is 149, the highest break in professional matchplay is 148.

## **Tournaments**

The most important event in professional snooker is the World Championship, held annually since 1927 (except between 1958 and 1963). The tournament has been held at the Crucible Theatre in Sheffield (England) since 1977, and was sponsored by Embassy from 1976 to 2005. Due to the fact that tobacco companies are no longer allowed to sponsor sporting events in the United Kingdom after 2005, the World Snooker Championship had to find a new sponsor. It was announced in January 2006 that the 2006-2010 world championships would be sponsored by online casino 888.com.

Discussion has occurred about the whereabouts of future World Championships, focussing on the possibility of moving the tournament to another city (either in the UK or overseas), or to a bigger venue to accommdate the high spectator demand. This was concluded in 2005 with confirmation that the event will stay in Sheffield for at least a further five years. However, there are plans still to replace The Crucible in Sheffield, by building a new, high capacity, billiards arena.

The group of tournaments that come next in importance are the ranking tournaments. Players in these tournaments score world ranking points. A high ranking ensures qualification for next year's tournaments, invitations to invitational tournaments and an advantageous draw in tournaments.

Third in line are the invitational tournaments, to which most of the highest ranked players are invited. The most important tournament in this category is The Masters, which to most players is the 2nd or 3rd most sought-after prize.

There are also other championships that have less importance, which don't give any world ranking points and aren't televised. These can change on a year-to-year basis depending on calendars and sponsors but the World Snooker website has full details.

## References

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## Motor sports

*Auto racing* (also known as *automobile racing*, *autosport* or *motorsport*) is a sport involving racing automobiles. *Motor racing* or *motorsport* may also mean motorcycle racing, and it can further include motorboat racing and air racing. It is one of the world's most popular spectator sports and perhaps the most thoroughly commercialized.

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## History

### The start

Auto racing began almost immediately after the construction of the first successful petrol-fuelled autos. In 1894, the first contest was organized by Paris magazine Le Petit

Journal, a reliability test to determine best performance. That first race now is called Paris to Rouen 1894. Competitors included factory vehicles from Karl Benz's Benz & Cie. and Gottlieb Daimler and Wilhelm Maybach's DMG.

A year later the first real race was staged in France, from Paris to Bordeaux. First over the line was Émile Levassor but he was disqualified because his car was not a required four-seater.

An international competition began with the Gordon Bennett Cup in auto racing.

The first auto race in the United States, over a 54.36 mile (87.48 km) course, took place in Chicago, Illinois on November 2, 1895, Frank Duryea winning in 10 h and 23 min, beating three petrol-fuelled cars and two electric. The first trophy awarded was the Vanderbilt Cup.

## **City to city racing**

With auto construction and racing dominated by France, the French automobile club ACF staged a number of major international races, usually from or to Paris, connecting with another major city in Europe or France.

These very successful races ended in 1903 when Marcel Renault was involved in a fatal accident near Angouleme in the Paris-Madrid race. Eight fatalities caused the French government to stop the race in Bordeaux and ban open-road racing.

## **1910-1950**

The 1930s saw the radical differentiation of racing vehicles from high-priced road cars, with Delage, Auto Union, Mercedes-Benz, Delahaye and Bugatti constructing streamlined vehicles with engines producing up to 450 kW(612HP) with the aid of multiple superchargers. From 1928-1930 and again in 1934-1936, the maximum weight permitted was 750 kg(1654Lbs), a rule diametrically opposed to current racing regulations. Extensive use of aluminium alloys was required to achieve light weight, and in the case of the Mercedes, the paint was removed to satisfy the weight limitation, producing the famous Silver Arrows.

## **Regulations**

As of today regulations are defined by the FIA.

## **Categories**

There are many categories of auto racing. Categories are defined by the Appendix J to the international motor sports code.

## **Single-seater racing**

Single-seater (open-wheel) racing is perhaps the most well-known form of motorsport, with cars designed specifically for high-speed racing. The wheels are not covered, and the cars often have aerofoil wings front and rear to produce downforce and enhance adhesion to the track.

Single-seater races are held on specially designed closed circuits or street circuits closed for the event. Many single-seater races in North America are held on "oval" circuits and the Indy Racing League races mostly on ovals.

The best-known variety of single-seater racing is the Formula One World Championship, which involves an annual championship of around 18 races a year featuring major international car and engine manufacturers such as Ferrari, McLaren and Renault in an ongoing battle of technology and driver skill. Formula One is, by any measure, the most expensive sport in the world, with some teams spending in excess of 200 million US dollars per year. Formula One is widely considered to be the pinnacle of motorsports. In North America, the cars used in the National Championship (currently Champcars and the Indy Racing League) have traditionally been similar to F1 cars but with more restrictions on technology aimed at helping to control costs.

Other single-seater racing series are the A1 Grand Prix (the world cup of motorsport), GP2 (formerly known as Formula 3000 and Formula Two), Formula Nippon, Formula Renault 3.5 (also known as the World Series by Renault, succession series of World Series by Nissan), Formula Three and Formula Atlantic.

There are other categories of single-seater racing, including kart racing, which employs a small, low-cost machine on small tracks. Many of today's top drivers started their careers in karts. Formula Ford represents a popular first open-wheel category for up-and-coming drivers stepping up from karts.

## **Rallying**

Rallying, or rally racing, involves highly modified production cars on (closed) public roads or off-road areas run on a point-to-point format where participants and their co-drivers "rally" to a set of points, leaving in regular intervals from start points. A rally is typically conducted over a number of stages of any terrain, which entrants are often allowed to scout beforehand. The co-driver uses the "pacenotes" to help the driver complete each stage as fast as possible, reading the detailed shorthand aloud over an in-car intercom system. Competition is based on lowest total elapsed time over the course of an event.

The top series is the World Rally Championship (WRC), but there also regional championships and many countries have their own national championships. Some famous rallies include the Monte Carlo Rally and Rally Argentina. Another famous event (actually best described as a "rally raid") is the Paris-Dakar Rally. There are also many smaller, club level, categories of rallies which are popular with amateurs, making up the "grass roots" of motorsports.

## **Touring car racing**

Touring car racing is a style of road racing that is run with production derived race cars. It often features exciting, full-contact racing due to the small speed differentials and large grids.

The V8 Supercars originally from Australia, Deutsche Tourenwagen Masters originally from Germany, and the World Touring Car Championship held with 2 non-European races (previously the European Touring Car Championship) are the major touring car championships conducted worldwide.

The Sports Car Club of America's SPEED World Challenge Touring Car and GT championships are dominant in North America while the venerable British Touring Car Championship continues in Great Britain. America's historic Trans-Am Series is undergoing a period of transition, but is still the longest-running road racing series in the U.S. The National Auto Sport Association also provides a venue for amateurs to compete in home-built factory derived vehicles on various local circuits.

## **Stock car racing**

Stock car racing is the American variant of touring car racing. Usually conducted on ovals, the cars look like production cars but are in fact purpose-built racing machines which are all very similar in specifications. Early stock cars were much closer to production vehicles; the car to be raced was often driven from track to track.

The main stock car racing series is NASCAR and among the most famous races in the series are the Daytona 500 and the Pepsi 400. NASCAR also runs the Busch Series (a junior stock car league) and the Craftsman Truck Series (pickup trucks).

NASCAR also runs the Featherlite series of "modified" cars which are heavily modified from stock form. With powerful engines, large tires, and light bodies. NASCAR's oldest series is considered by many to be its most exciting.

There are also other stock car series like IROC in the United States and CASCAR in Canada.

British Stock car racing is a form of Short Oval Racing This takes place on shale or tarmac tracks in either clockwise or anti-clockwise direction depending on the class, some of which allow contact.

Races are organised by local promoters and all drivers are registered with BRISCA and have their own race number.

What classes exist depends on the promoters, so events in Scotland at Cowdenbeath can be very different from an event at Wimbledon Stadium in London.

## **Drag racing**

In drag racing, the objective is to complete a certain distance, traditionally 1/4 mile, (400 m), in the shortest possible time. The vehicles range from the everyday car to the purpose-built dragster. Speeds and elapsed time differ from class to class. A street car can cover the 1/4 mile (400 m) in 15 s whereas a top fuel dragster can cover the same distance in 4.5 s and reach 330 mph (530 km/h). Drag racing was organised as a sport by Wally Parks in the early

1950s through the NHRA (National Hot Rod Association) which is the largest sanctioning motor sports body in the world. The NHRA was formed to prevent people from street racing. Illegal street racing is not drag racing.

Launching its run to 330 mph (530 km/h), a top fuel dragster will accelerate at 4.5 g (44 m/s<sup>2</sup>), and when braking and parachutes are deployed, the driver experiences deceleration of 4 g (39 m/s<sup>2</sup>), more than space shuttle occupants. A single top fuel car can be heard over eight miles (13 km) away and can generate a reading of 1.5 to 2 on the Richter scale. (NHRA Mile High Nationals 2001, and 2002 testing from the National Seismology Center.)

Drag racing is often head-to-head where two cars battle each other, the winner proceeding to the next round. Professional classes are all first to the finish line wins. Sportsman racing is handicapped (slower car getting a head start) using an index, and cars running faster than their index "break out" and lose.

Drag racing is mostly popular in the United States.

## **Sports car racing**

In sports car racing, production versions of sports cars and purpose-built prototype cars compete with each other on closed circuits. The races are usually conducted over long distances, at least 1000 km, and cars are driven by teams of two or three drivers (and sometimes more in the US), switching every now and then. Due to the performance difference between production based sports cars and sports racing prototypes, one race usually involves many racing classes. In the US the American Le Mans Series was organized in 1999, featuring GT, GTS, and two prototype classes, LMP1 (Le Mans Prototype 1) and LMP2. Audi currently dominates the Prototype classes but don't discount the Acura/Honda debut as they've just officially announced and confirmed their entry for 2007 at 2006 New York Auto Show. Another series based on Le Mans began in 2004, the Le Mans Endurance Series, which included four 1000 km races at tracks in Europe. A competing body, Grand-Am, which began in 2000, sanctions its own set of endurance series, the Rolex Sports Car Series and the Grand-Am Cup. Grand-Am events typically feature many more cars and much closer competition than American Le Mans.

Famous sports car races include the 24 Hours of Le Mans, the 24 Hours of Daytona and the 12 Hours of Sebring.

## **Offroad racing**

In offroad racing, various classes of specially modified vehicles, including cars, compete in races through off-road environments. In North America these races often take place in the desert, such as the famous Baja 1000. In Europe, "offroad" refers to events such as autocross or rallycross, while desert races and rally-raids such as the Paris-Dakar, Master Rallye or European "bajas" are called Cross-Country Rallies.



## **Kart racing**

Although often seen as the entry point for serious racers into the sport, kart racing, or karting, can be an economic way for amateurs to try racing and is also a fully fledged international sport in its own right. World-famous F1-drivers like Michael and Ralf Schumacher and most of the typical starting grid of a modern Grand Prix took up the sport at around the age of eight, with some testing from age three. Several former motorcycle champions have also taken up the sport, notably Wayne Rainey, who was paralysed in a racing accident and now races a hand-controlled kart. As one of the cheapest ways to go racing, karting is seeing its popularity grow worldwide.

Go-karts, or just "karts" - seem very distant from normal road cars, with diminutive frames and wheels, but a small engine combined with very light weight make for a quick machine. The tracks are also on a much smaller scale, making kart racing more accessible to the average enthusiast.

## **Other categories**

- Autocrossing
- Autograss
- Board track
- Demolition Derby
- Dirt speedway racing
- Dirt track racing
- Drifting
- Folk race
- Grand Prix Truck Racing
- International Sporting Code
- Rallycross
- Road racing
- Short track motor racing
- Slalom
- Solo
- Street racing

## **Use of flags**

In open-wheel, stock-car and other types of circuit auto races, flags are displayed to indicate the general status of a race and to communicate instructions to competitors in a race. While the flags have changed from the first years (e.g. red used to start a race), these are generally accepted for today.

# Boxing

*Boxing*, also called *pugilism*, *prizefighting* (when referring to professional boxing) or the *sweet science* (a common nickname among fans) is a sport where two participants of similar weight fight each other with their fists in a series of one to three-minute intervals called "rounds". In both Olympic and professional divisions, the combatants (called *boxers* or *fighters*) avoid their opponent's punches while trying to land punches of their own. Points are awarded for clean, solid blows to the legal area on the front of the opponent's body above the waistline, with hits to the head and torso being especially valuable. The fighter with the most points after the scheduled number of rounds is declared the winner. Victory may also be achieved if the opponent is knocked down and unable to get up before the referee counts to ten (a Knockout, or KO) or if the opponent is deemed too injured to continue (a Technical Knockout, or TKO). For record keeping purposes, a TKO is counted as a knockout. On boxers' records, only KO's are mentioned. Technical knockouts are usually only mentioned in contemporaneous news articles.

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## Origins

Earliest evidence suggests that boxing was prevalent in North Africa during 4000 BC and the Mediterranean in 1500 BC.

A Greek ruler named Theseus, who ruled around 900 B.C., was entertained by men who would be seated in front of each other and beat another with their fists until one of them was killed. In time, the fighters fought on their feet and wore gloves (not padded) and wrappings on their arms below the elbows, but were otherwise naked when competing. First accepted as an Olympic sport (the ancient Greeks called it Pygme/ Pygmachia) in 688 BC, participants in the ancient games trained on punching bags (called a korykos). Keeping their fingers free, fighters then wore leather straps (called himantes) on their hands, wrists, and sometimes lower arms, to protect them from injury.

In Ancient Rome, fighters were usually criminals and slaves. They hoped to become champions and gain their freedom. However, free men also fought. Eventually, fist fighting became so popular that even aristocrats started fighting, but that was banned by the ruler Augustus. In 500 A.D., the sport was banned by Theodoric the Great.

## London Prize Ring rules (1743)

Records of boxing activity disappeared after the fall of the Roman Empire. The sport would later resurface in England during the early 18th century in the form of bare-knuckle prizefighting. The first documented account of a bare-knuckle fight in England appeared in 1681 in the "London Protestant Mercury," and the first English bare-knuckle champion was James Figg in 1719. This is also the time when the word "boxing" first came to be used.

Early bare-knuckle fighting was crude with no written rules. There were no weight divisions, round limits and no referee. Modern rules banning gouging, grappling, biting, headbutting, fish-hooking and blows below the belt were absent.

The first boxing rules, called the London Prize Ring rules, were introduced by heavyweight champion Jack Broughton in 1743 to protect fighters in the ring where deaths sometimes occurred. Under these rules, if a man went down and could not continue after a count of 30 seconds, the fight was over. Hitting a downed fighter and grasping below the waist were prohibited. Broughton also invented "mufflers" (padded gloves), which were used in training and exhibitions.

In 1838, the London Prize Ring rules were expanded in detail. Later revised in 1853, they stipulated the following:

- Fights occurred in a 24-foot-square ring surrounded by ropes.
- If a fighter was knocked down, he had to rise within 30 seconds of his own power to be allowed to continue.
- Biting, headbutting and hitting below the belt were declared fouls.

### **Marquess of Queensberry rules (1867)**

In 1867, the Marquess of Queensberry rules were drafted by John Chambers for Olympic championships held at Lillie Bridge in London for Lightweights, Middleweights and Heavyweights. The rules were published under the patronage of the Marquess of Queensberry, whose name has always been associated with them.

There were twelve rules in all, and they specified that fights should be "a fair stand-up boxing match" in a 24-foot-square ring. Rounds were three minutes long with one minute rest intervals between rounds. Each fighter was given a ten-second count if he was knocked down and wrestling was banned.

The introduction of gloves of "fair-size" also changed the nature of the bouts. An average pair of boxing gloves resembles a bloated pair of mittens and are laced up around the wrists. Gloves protected the hands of both fighters but their considerable size and weight made knock-out victories more difficult to achieve. Resultantly, bouts became longer and more strategic with greater importance attached to defensive maneuvers such as slipping, bobbing, countering and angling.

The English case of *R v. Coney* in 1882 found that a bare-knuckle fight was an assault occasioning actual bodily harm, despite the consent of the participants. This marked the end of widespread public bare-knuckle contests in England.

The first world heavyweight champion under the Queensberry Rules was "Gentleman Jim" Corbett, who defeated John L. Sullivan in 1892 at the Pelican Athletic Club in New Orleans.

With the gradual acceptance of formalised rules, two distinct branches of boxing emerged; Professional and Olympic. The boxing rules enforced by governing bodies worldwide today at the local, national and international level are all derived in some way from the Marquess of Queensberry Rules.

### **Olympic boxing**

Olympic (or Amateur) boxing is found at the Olympic Games and Commonwealth Games. Olympic boxing prizes point scoring rather than physical damage or knockouts. Bouts comprise four rounds of two minutes in Olympic and Commonwealth and three rounds of two minutes in a national ABA (Amateur Boxing association) bout each with a one minute interval between rounds.

Competitors wear protective headgear and gloves with a white strip across the knuckle. A punch is considered a scoring punch only when the boxers connect with the white portion of the gloves. Each punch that lands on the head or torso is awarded a point. A referee monitors the fight to ensure that competitors use only legal blows (a belt worn over the torso represents the lower limit of punches - any boxer repeatedly landing "low blows" is disqualified). Referees also ensure that the boxers don't use holding tactics to prevent the opponent from swinging (if this occurs, the referee separates the opponents and orders them to continue boxing. Repeated holding can result in a boxer being penalized, or ultimately, disqualified).

Referees will stop the bout if a boxer is seriously injured, if one boxer is significantly dominating the other or if the score is severely imbalanced.

### **Olympic (amateur) boxing history**

The Queensberry Amateur Championships continued from 1867 to 1885, and so, unlike their professional counterparts, Olympic boxers did not deviate from using gloves once the Queensberry Rules had been published. In the United Kingdom, the Amateur Boxing Association (A.B.A.) was formed in 1880 when twelve clubs affiliated. It held its first championships the following year. Four weight classes were contested, Featherweight (9 stone), Lightweight (10 stone), Middleweight (11 stone, 4 pounds) and Heavyweight (no limit). (A stone is equal to 14 pounds). By 1902, American boxers were contesting the titles in the A.B.A. Championships, which, therefore, took on an international complexion. By 1924, the A.B.A. had 105 clubs in affiliation.

Boxing first appeared at the Olympic Games in 1904 and, apart from the Games of 1912, has always been part of them. From 1972 through 2004, Cuba and the United States have won the most Gold Medals, 29 for Cuba and 21 for the U.S. Internationally, Olympic boxing spread steadily throughout the first half of the 20th century, but when the first international body, the Federation Internationale de Boxe Olympique (International Olympic Boxing Federation) was formed in Paris in 1920, there were only five member nations. In 1946, however, when the International Amateur Boxing Association (A.I.B.A.) was formed in London, twenty-four nations from five continents were represented, and the A.I.B.A. has continued to be the official world federation of Olympic boxing ever since. The first World Amateur Boxing Championships were staged in 1974.

In the late 19th and early 20th century, Olympic boxing was encouraged in schools, universities and in the armed forces, but the champions usually came from among the urban poor.

Women's boxing first appeared in the Olympic Games at a demonstration bout in 1904. For most of the 20th century, however, it was banned in most nations. Its revival was

pioneered by the Swedish Amateur Boxing Association, which sanctioned events for women in 1988. The British Amateur Boxing Association sanctioned its first boxing competition for women in 1997. The first event was to be between two thirteen-year-olds, but one of the boxers withdrew because of hostile media attention. Four weeks later, an event was held between two sixteen-year-olds.

The A.I.B.A. accepted new rules for Women's Boxing at the end of the 20th century and approved the first European Cup for Women in 1999 and the first World Championship for women in 2001. Women's boxing will be an exhibition sport at the 2008 Olympics, but it won't become an official Olympic sport until the 2012 Olympics.

A new scoring system was invented for Olympic boxing: using a computer, judges must press a button every time they think a boxer landed a punch. When three or more of the five judges press the button within a second of each other, the punch counts as a "point" for the fighter that landed it. Punches to the head or face of an opponent usually score the most points for a competitor. At any point of the fight in which a fighter is leading by twenty points (or sometimes more), the referee is indicated and the fight is stopped, the leading fighter winning by "mercy", and credited with a knockout.

## **Professional boxing**

Professional bouts are far longer than Olympic bouts (ranging from four to twelve rounds), headgear is not permitted, and boxers are generally allowed to take much more punishment before a fight is halted. At any time, however, the referee may stop the contest if he believes that one participant can not intelligently defend him or herself due to injury. In that case, the other participant is awarded a technical knockout win, which appears on the boxer's record as a knockout win (or loss). A technical knockout would also be awarded if a fighter lands a punch that opens a cut on the opponent, and the opponent is later deemed not fit to continue by a doctor because of the cut. For this reason, fighters often employ cutmen, whose job is to treat cuts between rounds so that the boxer is able to continue despite the cut. If a boxer simply quits fighting, or if his corner stops the fight, then the winning boxer is also awarded a technical knockout victory.

If a knockout or disqualification does not occur, the fight must go to the scorecards. Professional fights have three judges each, and each of the judges must use the 10 point must system: Under this system, each time a boxer wins a round in the judges' eyes, the judge gives that boxer 10 points, and the other 9 or less. If the judge deems the round to be a tie, he or she may score it 10-10. When the fight reaches its scheduled distance, all scores are added, round by round, to determine who won on each judges' cards. When all three judges have the same boxer as the winner, this is an unanimous decision. When two judges have one boxer winning the fight and the other one has it a tie, this is called a majority decision. When two judges have one boxer winning the fight and the other judge has the other boxer winning, this is called a split decision. When one judge gives his or her vote to one boxer, another one gives it to the other boxer, and the third judge calls it a tie, this is a draw. It is also a draw when two judges score the fight a tie, regardless of who the third judge scored the bout for.

In the United Kingdom, the bout is only scored by the referee, except when a title is at stake, in which case it is scored by three judges.

If a fight can not go on because of an injury caused to one of the competitors by a headbutt, there are different rules: If the fight has not reached the end of round three, (in some places, round four), the fight is declared a technical draw or a no contest. If it has reached beyond the end of round three (or four), then the scorecards are read and whoever is ahead, wins by a technical decision.

## **Evolution of professional boxing**

In 1891, the National Sporting Club (N.S.C.), a private club in London, began to promote professional glove fights at its own premises, and created nine of its own rules to augment the Queensberry Rules. These rules specified more accurately the role of the officials, and produced a system of scoring that enabled the referee to decide the result of a fight. The British Boxing Board of Control (B.B.B.C.) was first formed in 1919 with close links to the N.S.C., and was re-formed in 1929 after the N.S.C. closed.

In 1909, the first of twenty-two belts were presented by the fifth Earl of Lonsdale to the winner of a British title fight held at the N.S.C. In 1929, the B.B.B.C. continued to award Lonsdale belts to any British boxer who won three title fights in the same weight division. The "title fight" has always been the focal point in professional boxing. In the 19th and early 20th centuries, however, there were title fights at each weight. Promoters who could stage profitable title fights became influential in the sport, as did boxers' managers. The best promoters and managers have been instrumental in bringing boxing to new audiences and provoking media and public interest. The most famous of all three-way partnership (fighter-manager-promoter) was that of Jack Dempsey (Heavyweight Champion, 1919-1926), his manager Jack Kearns, and the promoter Tex Rickard. Together they grossed US\$ 8.4 million in only five fights between 1921 and 1927 and ushered in a "golden age" of popularity for professional boxing in the 1920s. They were also responsible for the first live radio broadcast of a title fight (Dempsey v. Georges Carpentier, in 1921). In the United Kingdom, Jack Solomons' success as a fight promoter helped re-establish professional boxing after the Second World War and made the UK a popular place for title fights in the 1950s and 1960s.

In the first part of the 20th century, the United States became the centre for professional boxing. It was generally accepted that the "world champions" were those listed by the Police Gazette. After 1920, the National Boxing Association (N.B.A.) began to sanction "title fights". Also during that time, Ring Magazine magazine was founded and it listed champions and awarded championship belts. The N.B.A. was renamed in 1962 and became the World Boxing Association (W.B.A.). The following year, a rival body, the World Boxing Council (W.B.C.), was formed. In 1983, another world body, the International Boxing Federation (I.B.F.) was formed. By the end of the 20th century, a boxer had to be recognized by the three separate bodies to be the "Undisputed World Champion". Regional sanctioning bodies such as the North American Boxing Federation, the North American Boxing Council and the United States Boxing Association also awarded championships. Ring Magazine also continued listing the World Champion of each weight division, and its rankings continue being of the most appreciated by fans.

Although women fought professionally in many countries, in the United Kingdom the B.B.B.C. refused to issue licences to women until 1998. By the end of the century, however, they had issued five such licenses. The first sanctioned bout between women was in November 1998 at Streatham in London, between Jane Couch and Simona Lukic.

## **Length of bouts**

For decades, from the 1920s to the 1980s, world championship matches in professional boxing were scheduled for fifteen rounds, but that changed after a November 13, 1982 WBA Lightweight title bout ended with the death of boxer Duk Koo Kim in a fight against Ray Mancini in the 14th round of a nationally televised championship fight on CBS.

Exactly three months after the fatal fight, the World Boxing Council reduced the number of their championship fights to 12 rounds. The World Boxing Association even stripped a fighter of his championship in 1983 because the fight had been a 15-round bout, shortly after the rule was changed to 12 rounds. By 1988, to the displeasure of many boxing purists, all fights had been reduced to a maximum of 12 rounds only, partially for safety, and partially for television, as a 12-round bout could take one hour to broadcast, while a 15-round bout could require 90 minutes to broadcast.

## **Equipment**

Boxing techniques utilize very forceful strikes with the hand. There are many bones in the hand, and striking surfaces without proper technique can cause serious hand injuries. Today, most trainers do not allow boxers to train and spar without hand/wrist wraps and gloves. Handwraps are used to secure the bones in the hand, and the gloves are used to protect the hands from blunt injury, allowing boxers to throw punches with more force than if they did not utilize them.

Headgear, used in Olympic boxing, protects against cuts, scrapes, and swelling, but does not protect very well against concussions. Headgear does not sufficiently protect the brain from the jarring that occurs when the head is struck with great force. Also, most boxers aim for the chin on opponents, and the chin is usually not padded. Thus, a powerpunch can do a lot of damage to a boxer, and even a jab that connects to the chin can cause damage, regardless of whether or not headgear is being utilized.

## **Technique**

### **Stance and movement**

### **Development**



The modern boxing stance is a reflection of the current system of rules employed by professional boxing. It differs in many ways from the typical boxing stances of the 19th and early 20th centuries. It's been stated that Americans adopted a more upright vertical armed guard (as opposed to more horizontally held, knuckles facing the ground guard as seen when looking at early 20th century boxers such as Jack Johnson) due to the Americans' confrontations with the Filipino natives as a result of the Philippines Spanish-American war. When engaged in hand to hand combat, the Filipinos would slash the wrists of the American soldiers, the Americans adapted by changing the guarded stance and thus just one example of a boxing technicality evolving.

### **The boxer's stance**

The following stance applies for a right-handed boxer. The boxer stands with the legs shoulder-width apart with the right foot a half-step behind the left foot. The left (lead) fist is held vertically about six inches in front of the face at eye level. The right (rear) fist is held beside the chin and the elbow tucked against the ribcage to protect the body. The chin is tucked into the chest to avoid punches to the jaw which commonly cause knock-outs. Modern boxers can sometimes be seen "tapping" their cheeks or foreheads with their fists in order to remind themselves to keep their hands up (which becomes difficult during long bouts).

### **Movement**

Modern boxers are taught to "push off" with their feet in order to move effectively. Forward motion involves lifting the lead leg and pushing with the rear leg. Rearward motion involves lifting the rear leg and pushing with the lead leg. During lateral motion the leg in the direction of the movement moves first while the opposite leg provides the force needed to move the body.

### **Punches**

There are four basic punches in boxing: the Jab, Cross, Hook and Uppercut. If a boxer is right-handed, his left hand is the lead hand, his right hand is the rear hand. The following techniques apply to a right-handed boxer. A right-handed boxer's handedness is commonly described as orthodox. A left-handed boxer is called an unorthodox boxer or a Southpaw. These different punching types can be combined to form 'combos', like a jab and cross combo. Nicknamed the one two combo, it is a really effective combination because the jab blinds the opponent and the cross is powerful enough to knock the opponent out.<sup>[1]</sup>

- Jab - A quick, straight punch thrown with the lead hand from the guard position. The jab is accompanied by a small, clockwise rotation of the torso and hips, while the fist rotates 90 degrees, becoming horizontal upon impact. As the punch reaches full extension, the lead shoulder is brought up to guard the chin. The rear hand remains next to the face to guard the jaw. After making contact with the target, the lead hand is retracted quickly to resume a guard position in front of the face. The jab is the most important punch in a boxer's arsenal because it provides a fair amount of its own cover and it leaves the least amount of space for a counterpunch from the opponent. It has the longest reach of any punch and does not require commitment or large weight transfers. Due to its relatively weak

power, the jab is often used as a tool to gauge distances, probe an opponent's defenses, and set up heavier, more powerful punches. A half-step may be added, moving the entire body into the punch, for additional power.

- **Cross** - A powerful straight punch thrown with the rear hand. From the guard position, the rear hand is thrown from the chin, crossing the body and travelling towards the target in a straight line. The rear shoulder is thrust forward and finishes just touching the outside of the chin. At the same time, the lead hand is retracted and tucked against the face to protect the inside of the chin. For additional power, the torso and hips are rotated anti-clockwise as the cross is thrown. Weight is also transferred from the rear foot to the lead foot, resulting in the rear heel turning outwards as it acts as a fulcrum for the transfer of weight. Body rotation and the sudden weight transfer is what gives the cross its power. Like the jab, a half-step forward may be added. After the cross is thrown, the hand is retracted quickly and the guard position resumed. It can be used to counterpunch a jab, aiming for the opponent's head (or a counter to a cross aimed at the body) or to set up a hook. The cross can also follow a jab, creating the classic "one-two combo." The cross is also called a "straight" or "right."

- **Hook** - A semi-circular punch thrown with the lead hand to the side of the opponent's head. From the guard position, the elbow is drawn back with a horizontal fist (knuckles pointing forward) and the elbow bent. The rear hand is tucked firmly against the jaw to protect the chin. The torso and hips are rotated clockwise, propelling the fist through a tight, clockwise arc across the front of the body and connecting with the target. At the same time, the lead foot pivots clockwise, turning the left heel outwards. Upon contact, the hook's circular path ends abruptly and the lead hand is pulled quickly back into the guard position. A hook may also target the lower body (the classic Mexican hook to the liver) and this technique is sometimes called the "rip" to distinguish it from the conventional hook to the head. The hook may also be thrown with the rear hand.

- **Uppercut** - A vertical, rising punch thrown with the rear hand. From the guard position, the torso shifts slightly to the right, the rear hand drops below the level of the opponent's chest and the knees are bent slightly. From this position, the rear hand is thrust upwards in a rising arc towards the opponent's chin or torso. At the same time, the knees push upwards quickly and the torso and hips rotate anti-clockwise and the rear heel turns outward, mimicking the body movement of the cross. The strategic utility of the uppercut depends on its ability to "lift" the opponent's body, setting it off-balance for successive attacks. The right uppercut followed by a left hook is a deadly combination.

## **Defense**

- **Slip** - Slipping rotates the body slightly so that an incoming punch passes harmlessly next to the head. As the opponent's punch arrives, the boxer

sharply rotates the hips and shoulders. This turns the chin sideways and allows the punch to "slip" past.

- Bob and Weave - Bobbing moves the head laterally and beneath an incoming punch. As the opponent's punch arrives, the boxer bends the legs quickly and simultaneously shifts the body either slightly right or left. Once the punch has been evaded, the boxer "weaves" back to an upright position, emerging on either the outside or inside of the opponent's still-extended arm. To move outside the opponent's extended arm is called "bobbing to the outside". To move inside the opponent's extended arm is called "bobbing to the inside".

- Parry/Block - Parrying or blocking uses the boxer's hands as defensive tools to deflect incoming attacks. As the opponent's punch arrives, the boxer delivers a sharp, lateral, open-handed blow to the opponent's wrist or forearm, redirecting the punch.

- The Cover-Up - Covering up is the last opportunity to avoid an incoming strike to an unprotected face or body. Generally speaking, the hands are held high to protect the head and chin and the forearms are tucked against the torso to impede body shots. When protecting the body, the boxer rotates the hips and lets incoming punches "roll" off the guard. To protect the head, the boxer presses both fists against the front of the face with the forearms parallel and facing outwards. This type of guard is weak against attacks from below.

- The Clinch - Clinching is a rough form of grappling and occurs when the distance between both fighters has closed and straight punches cannot be employed. In this situation, the boxer attempts to hold or "tie up" the opponent's hands so he is unable to throw hooks or uppercuts. To perform a clinch, the boxer loops both hands around the outside of the opponent's shoulders, scooping back under the forearms to grasp the opponent's arms tightly against his own body. In this position, the opponent's arms are pinned and cannot be used to attack. Clinching is a temporary match state and is quickly dissipated by the referee.

## **In the ring**

Boxers generally attempt to land short, fast combinations and then quickly shift position to avoid a possible response by their opponent. Strategically, the ring's centre is a desired position since a boxer is able to conserve movement by forcing the opponent to circle around them. When in the centre, the boxer is also less likely to be knocked backwards against the ropes surrounding the ring and cornered.

## **Less common strategies**

### **The "rope-a-dope" strategy**

- Used by Muhammad Ali in his 1974 "Rumble in the Jungle" bout against George Foreman, the rope-a-dope method involves laying back on the ropes, covering up defensively as much as possible and allowing the opponent to land punches. Weathering the blows, the boxer lures the opponent into expending energy whilst conserving his/her own. If successful, the attacking opponent will eventually tire, creating defensive flaws which the boxer can exploit. In modern boxing, the rope-a-dope is generally discouraged since most opponents are not fooled by it and few boxers possess the physical toughness to withstand a prolonged, unanswered assault.

### **Bolo punch**

- Occasionally seen in Olympic boxing, the bolo is an arm punch which owes its power to the shortening of a circular arc rather than to transference of body weight; it tends to have more of an effect due to the surprise of the odd angle it lands at rather than the actual power of the punch. This is more of a gimmick than a technical maneuver; this punch is not taught, being on the same plane in boxing technicality as is the Ali shuffle.

## **Boxing styles**

There are three generally accepted boxing styles that are used to define fighters. They are the in-fighter, the out-fighter and the brawler.

### **In-fighter**

In-fighters are often considered the most exciting boxers to watch. This style favours closing inside an opponent, overwhelming them with intensity and flurries of hooks and uppercuts. They tend to be agile on their feet which can make them difficult to evade for a slower fighter.

Notable in-fighters include Jake LaMotta, Ricky Hatton, and Joe Frazier.

## **Out-fighter**

Out-fighters are the opposite of the in-fighter. Where the in-fighter tries to close the gap between himself and his opponent, the out-fighter seeks to maintain that gap and fight with faster, longer range punches. Since they rely on the weaker jabs and straights (as opposed to hooks and uppercuts), they tend to win by points decisions rather than by knockout, although some out-fighters have notable knockout records. They attempt to control the fight by using their jab to keep their opponent at range, and using their strong footwork to evade any opponent that closes in. Out-fighters are often regarded as the best boxers for their desire to win a fight by wearing his opponent down and outclassing him by strategy, rather than to simply knock them out.

Notable out-fighters include Muhammad Ali, Pernell Whitaker, Floyd Mayweather Jr. and Larry Holmes.

## **Brawler**

If the out-fighter represents everything classy about boxing, the brawler (also known as the 'slugger', 'hard hitter' or 'one puncher') often stands for everything that's wrong with the sport. Sluggers tend to lack finesse in the ring, but make up for it in raw power, often able to knock almost any opponent out with a single punch. This ability makes them exciting to watch, and their fights unpredictable. Many brawlers tend to lack mobility in the ring and have difficulty pursuing fighters who are fast on their feet. They prefer the harder, slower punches (such as hooks and uppercuts) and tend to ignore combination punching. Their slowness and predictable punching patterns (single punches with obvious leads) often leaves them open for counterpunching.

Famous brawlers include Eric Esch, Sonny Liston, George Foreman, Mike Tyson (after his prime) and former featherweight champion Naseem Hamed.

## **Hybrid boxers**

These styles are merely archetypes that many boxers fall into. However, some notable fighters transcend any one category. Mike Tyson, although known primarily as a brawler, was a very intense in-fighter in the first half of his career. He had the strength of a brawler, but the combos, agility and ferocity of an in-fighter, which earned him his devastating reputation. Muhammed Ali, known for his footwork and blindingly fast jab, could mix it up on the inside with fast flurries, using his large frame and fast handspeed for more power. Naseem Hamed was primarily a slugger, favouring single, heavy punches, but his agility and reflexes allowed him to move like an out-fighter.

## **Swarmer**

A less common style of boxing. The swarmer is a boxer who attempts to overwhelm his opponent by applying constant pressure. Swarmers tend to have a very good bob and weave, good power, and a good chin, and a tremendous punch output. Boxers who use the swarmer style tend to have shorter careers than those who don't because the amount of punishment taken while trying to get past opponents guard is very high. Famous Swarmers include Rocky Marciano, Mike Tyson (during his prime), Joe Frazier, Harry Greb, and Jack Dempsey

## **Rock, Paper, Scissors**

There is a commonly accepted theory about the success each of these boxing styles has against the others. This is merely a theory and it has been disproven several times, although it serves as a decent guide. The general rule is similar to the game Rock, Paper, Scissors - each boxing style has advantages over one, but disadvantages against the other. A famous cliché amongst boxing fans and writers is "styles make fights".

Brawlers tend to overcome in-fighters, because the in-fighter likes to be on the inside, where the hard-hitting brawler is most effective. The in-fighters flurries tend to be less effective than the power punches of the slugger, who quickly overwhelms his opponents. Two famous examples of these include George Foreman defeating Joe Frazier and Mike Tyson knocking out Joe's son, Marvis Frazier (in just 20 seconds).

If the in-fighter is a meatbag for the brawler, they tend to succeed against out-fighters. Out-fighters prefer a slower fight, with some distance between themselves and the opponent. The in-fighter tries to close that gap and unleash furious flurries. On the inside, the out-fighter loses a lot of his combat effectiveness, because he cannot throw the hard punches. The in-fighter is generally successful in this case, due to his intensity in advancing on his opponent and his good agility, which makes him difficult to evade. An example of this type of fight is the first fight between Ali and Joe Frazier, the Fight of the Century, although their following two bouts defy the theory, with Ali winning both.

The out-fighter tends to be most successful against the brawler, whose slow speed (both hand and foot) and poor technique make them an easy target to hit for the faster out-fighter. The out-fighter's main key is to stay alert, as the brawler only needs to land one good punch to finish the fight. If the out-fighter can avoid those power punches, he can often wear the brawler down with fast jabs, tiring the slugger out. If he is successful enough, he may even apply extra pressure in the later rounds in an attempt to achieve a knockout.

By far, the most famous bout to depict this battle is the Rumble in the Jungle, where Muhammed Ali overwhelmed George Foreman in the eighth round to reclaim his heavyweight title.

Hybrid boxers tend to be the most successful in the ring, because they often have advantages against most opponents. Pre-prison Tyson, able to overwhelm any in-fighter with his tremendous power, was also able to use his in-fighting footspeed to close in on and knock out many out-fighters who tried to stay out of his range, such as Michael Spinks. Muhammed Ali's speed kept him away from hard hitters like Sonny Liston and George

Foreman, but his strong punching power allowed him to weather Joe Frazier enough to last, and eventually win two of their three bouts.

## **Famous boxers**

### **London rules and pre-Queensberry era**

The bareknuckle era produced legends like John L. Sullivan, the first world heavyweight champion in the sport.

### **1900s to 1920s**

One of the most famous boxers of the early 1900's was Tom Polson, who held the flyweight title from 1911-1913. little is known about him except he shot to fame in a quick time and died in suspicious circumstances in late 1913.

In the post-Queensberry era, the first British/New Zealand fighter to achieve superstar status was Bob Fitzsimmons. He weighed less than 12 stone (164 pounds) but won world titles at middleweight (1892), light heavyweight (1903), and heavyweight (1897). He fought his last bout at the age of fifty-two.

Famous British boxers include Harry Mallin (Middleweight, 1920 and 1924), Terry Spinks (Flyweight, 1956), Dick McTaggart (Lightweight, 1956) and Chris Finnegan (Middleweight, 1968).

American boxers in the post-Queensberry era include world heavyweight champions Jim Jeffries (the first Great White Hope) and Jack Johnson (the first black world heavyweight champion).

A Welsh flyweight called Jimmy Wilde won the world Flyweight Championship in 1916 and held it until 1923. He once had a sequence of eighty-eight fights without defeat. Between 1911 and 1923, he won seventy-five of his fights by a knockout. He was described in Wales as the "Mighty Atom" and "the ghost with a hammer in his hand".

### **1920s to 1940s**

Jack Dempsey was a world heavyweight champion and dominated the 20's after defeating Jess Willard. One of the hardest punchers of all-time and as Bert Randolph Sugar put it "Had a left hook from hell." Dempsey would later engage in a memorable rivalry with Gene Tunney. Their rivalry is most famous for "the long count". After knocking Tunney down in the seventh round of their rematch the referee gave Tunney extra time beyond the normal ten count to get up. Tunney would manage to stay upright for the rest of the fight on the way to a 10 round decision victory.

On June 22, 1938 an important fight occurred. With all of America behind him, and with Adolf Hitler watching in Germany Joe Louis knocked out Max Schmeling in the first round at Madison Square Garden to retain his heavyweight title. Louis was voted the best puncher of all time by Ring magazine.

Another American boxer, James Braddock (nicknamed Cinderella Man) became the world heavyweight champion by defeating Max Baer in 1935 against 10 to 1 odds. Braddock defeated Corn Griffin, but was destroyed by Joe Louis in a title bout.

In 1926, Hall-of-famer Harry Greb (World Middleweight boxing Champion from 1923 to 1926) died due to complications from surgery the age of 32. His final record was 106-8-3.

In 1938 Henry Armstrong became the first and only boxer to hold titles in three different weight classes at the same time (featherweight, lightweight, and welterweight). His attempt at winning the middleweight title would be thwarted in 1940.

In 1930, British boxer Jack Kid Berg won the light welterweight title. In 1948, Freddie Mills won the light heavyweight title. Among English flyweights, Jackie Brown won the title in 1932 and Peter Kane in 1938.

A flyweight from Glasgow, Scotland, Benny Lynch, held the world flyweight title in 1935 and again in 1937. Fellow Scotsman Jackie Paterson won the title in 1943.

#### **1940s to 1960s**

An American boxer in the 1950s, Rocky Marciano, remains the only undefeated world champion in any division. Another American, Sugar Ray Robinson, held the world welterweight title from 1946 to 1951 and the world middleweight title a record five times from 1951 to 1960. American boxer Archie Moore, held the world light heavyweight title for ten years and scored more knockout victories than any other boxer in history. In Northern Ireland, Rinty Monahan held the flyweight title from 1947 to 1950, and Barry McGuigan won the W.B.A. featherweight title in 1985.

Willie Pep began his career in 1940. Over 21 years later he would retire with a record of 230-11-1.

One of boxing's greatest rivalries began on October 2 1942 when Sugar Ray Robinson and Jake LaMotta waged the first of their six wars (Robinson would win five of the six).

#### **1960s to 1980s**

In the 1960s to the 1970s, an American heavyweight boxer named Cassius Clay changed his name to Muhammad Ali upon converting to the Abrahamic religion of Islam and promised to "shock the world." Ali fought Sonny Liston, Joe Frazier, Ken Norton, and George Foreman. Ali was known for his charismatic personality and refusal to enlist in the US Army during the Vietnam War, among other things. Ali is arguably the most well-known boxer in America.

After Ali retired, American boxer Sugar Ray Leonard won world titles in five different weight divisions.

#### **1980s to present**



Sugar Ray Leonard would come from behind to knock Thomas Hearns out in the 14th round on September 16, 1981 in one of the greatest fights of the decade. Leonard would go on to fight Roberto Duran twice in the 80s, losing the first fight but making Duran quit in the second fight (this is the famous "No mas" fight).

Middleweight champion "Marvelous" Marvin Hagler would engage in one of the greatest fights of all time when he faced Thomas Hearns at Caesar's Palace on April 15, 1985. The fight was billed as "The War" and it lived up to its billing. As soon as the bell rang both fighters ran towards the center of the ring and began trading hooks and uppercuts nonstop. The pace continued into round three when Hagler overwhelmed Hearns and knocked him out in brutal fashion. This fight made Hagler a household name and propelled him to superstardom. Hagler was able to lure Ray Leonard out of retirement in 1987, but lost a controversial decision to him. Hagler would retire from boxing immediately after that fight.

Nicknamed "Iron Mike", American heavyweight boxer Mike Tyson became world heavyweight champion at the age of 20 and the first undisputed champion in a decade. Controversy surrounded Tyson's career. He got into brawls outside the ring and was briefly married to actress Robin Givens. In 1989, challenger James "Buster Douglas, a 42 to 1 underdog, knocked Tyson out in the 10th round of their match in Tokyo. In 1991, he was imprisoned for allegedly raping Miss Black Rhode Island, Desiree Washington in an Indianapolis hotel room. In 1996, Tyson was banned from boxing for a year after biting a chunk from Evander Holyfield's ear during a bout. In August 2003, he filed for bankruptcy. In August 2005, Tyson unofficially retired from boxing.

American Roy Jones, Jr. won world titles in four different weight divisions(middleweight, super middleweight, light heavyweight, and heavyweight)). When he defeated John Ruiz to win the WBA heavyweight title, he was the first former middleweight champion to win a heavyweight title since Bob Fitzsimmons over one hundred years ago.

British heavyweight Lennox Lewis became undisputed champion in 1999 after winning the WBC title in 1993. Frank Bruno held the WBC world heavyweight title from 1995 and 1996, after beating the man who beat Lewis, Oliver McCall. He lost it to Mike Tyson in a rematch of their 1989 title bout. Lewis regained the title soon after and was at the top of the division until he retired in 2005.

Larry Holmes was heavyweight champion for seven years defeating fighters such as Muhammad Ali, Gerry Cooney, and Earnie Shavers. He started his career with 48 consecutive victories and had a chance to become only the second heavyweight champion to go 49-0. But a loss to Michael Spinks ended his dream. Holmes then began his "second career" where he faced such fighters as Mike Tyson, Evander Holyfield, Oliver McCall, and Ray Mercer. Holmes finished his career with a 69-6 record.

Currently the four heavyweight title belts are currently held by four different fighters, leaving the The Ring (magazine) heavyweight champion title (widely regarded as the least biased source of rankings) vacant.

One of the most surprising turnarounds in boxing history occurred on March 17, 1990 when Julio Cesar Chavez, behind on the scorecards, knocked out Meldrick Taylor with two seconds left in the 12th round. Chavez would go undefeated in his first 91 fights (including a very controversial draw vs. Pernell Whitaker) becoming a Mexican hero in the process before dropping a split decision against Ivan Robinson.

Oscar De La Hoya became the most popular non-heavyweight of all time. A one-man pay-per-view franchise, he owns the pay-per-view record for the two highest-grossing non-heavyweight fights of all time (against Felix Trinidad and Ricardo Mayorga). De La Hoya would also have successful pay-per-view fights against Ike Quartey, Julio Cesar Chavez, Shane Mosley, and Fernando Vargas.

Bernard Hopkins set the record for most consecutive defenses by a middleweight champion with twenty before losing a controversial decision to current middleweight champion Jermain Taylor.

Floyd Mayweather Jr. is considered by Ring Magazine[1] to be the best pound for pound fighter in the world with a record of 36-0 with 24 KOs.

Fighters in lower weight classes are experiencing unprecedented popularity today. In the last five years junior lightweights Marco Antonio Barrera and Erik Morales have fought numerous times on pay-per-view.

Sue Atkins (alias Sue Catkins) helped to pioneer women's boxing in the United Kingdom in the 1980s, but without any official recognition. The first British woman to be issued with a license was Jane Couch from Fleetwood, who won the Women's International Boxing Federation (WIBF) welterweight title in 1996.

## **International Boxing Hall of Fame**

Boxing's International Hall of Fame was inspired by a tribute an American town held for two local heroes in 1982. The town, Canastota, New York, honored former world welterweight/middleweight champion Carmen Basilio and his nephew, former world welterweight champion Billy Backus. The people of Canastota raised money for the tribute which inspired the idea of creating an official, annual hall of fame for notable boxers.

The International Boxing Hall of Fame opened in Canastota in 1989. The first inductees in 1990 included Jack Johnson, Benny Leonard, Jack Dempsey, Henry Armstrong, Sugar Ray Robinson, Archie Moore, and Muhammad Ali. The Hall of Fame's induction ceremony is held every June as part of a four-day event.

## **Medical concerns**

It should be noted that knocking a person unconscious or even causing concussion will always cause some permanent brain damage [2]. Furthermore, there is no clear division between the force required to knock out a human and an amount of force which will kill them.

In 1983, The Journal of the American Medical Association called for a ban on boxing. The editor, Dr. George Lundberg, called boxing an "obscenity" that "should not be sanctioned by any civilized society." Since then, the American Neurological Association, American Academy of Neurology and British, Canadian and Australian Medical Associations have also wanted to abolish the sport.

Many support the ban because it seems that causing injury to another athlete is the goal of the sport. Dr. Bill O'Neill, boxing spokesman for the British Medical Association, has

supported the BMA's proposed ban on boxing: "It is the only sport where the intention is to inflict serious injury on your opponent, and we feel that we must have a total ban on boxing." [3]

### **Fatalities versus brain injury**

Anti-boxing activist Manuel Velazquez compiled extensive data on deaths in boxing [4].

In 1984, R.J. McCunney and P.K. Russo published a study entitled Brain Injuries in Boxing. The study argued that boxing is relatively safe compared to other sports by citing the following figures on US sports fatalities:

Fatality rates per 100,000 participants

1. Horse racing: 128
2. Sky diving: 123
3. Hang gliding: 56
4. Mountaineering: 51
5. Scuba diving: 11
6. Motorcycle racing: 7
7. College football: 3
8. Boxing: 1.3

Lundberg replied: "It's not the deaths but the chronic brain damage that is so frequent." The AMA reports brain deterioration in three out of four boxers who have twenty or more professional fights.

### **Governing bodies**

Boxing has many governing bodies leaving no organization in overall control.

## Professional boxing

Governing Body

World Boxing Association (W.B.A.)

World Boxing Council (W.B.C.)

International Boxing Federation (I.B.F.)

World Boxing Organization (W.B.O.)

International Boxing Organization (I.B.O.)

## Amateur boxing

Governing Body

Association Internationale de Boxe Amateur  
(International Amateur Boxing Association) (A.I.B.A.)

## Impact of boxing on the English language

Numerous metaphors common to everyday speech derive from the sport of boxing. Some of these include:

Metaphor	Definition
he was rocked by that one	a fighter was hit by a punch with enough force to be dazed
not up to scratch	subpar, not able to do the task at hand (in the old days of boxing, boxers started the round by stepping over a scratch made in the ring, but if a boxer could not do this to keep the round going, he was said to be "not up to scratch")
saved by the bell	rescued from defeat by dint of time running out, an unexpected turn of events, etc.

on (or against) the ropes on the verge of being defeated  
 throw in the towel to quit, give up. Traditionally, a boxer's manager or trainer will throw a towel into the ring if he feels that his fighter cannot win and is endangering himself.  
 come out to throw oneself into an activity or competition; in boxing, to pursue the opponent aggressively (possibly recklessly)  
 swinging going down to fail while in the process of trying  
 in one's corner on someone's side, to help or cheer him on  
 down/out for the count knocked out, defeated  
 sucker punch hitting an opponent who is off his guard, unfairly taking advantage of a vulnerability  
 hitting below the belt a grossly unfair attack (in everyday life, usually of a verbal nature)  
 punch drunk dazed or incoherent (originally, from being repeatedly struck, can refer to dazes generally)  
 pull one's punches to hold back, withhold full force or attack  
 in the arena to be participating, engaged  
 keep your guard up to remain alert, on the defensive  
 punch above one's weight to compete against a more powerful opponent; to perform better than expected

## Boxing in popular culture

Undisputed, (2002)  
 The Broken Place, a novel involving boxing; Shaara had been an amateur boxer.  
 Battling Butler (1926 film) Starring Buster Keaton  
 The Champ (1931 film)  
 Two-Fisted (1935 film) Comedy  
 Kid Galahad (1937 film) Starring Edward G. Robinson  
 Golden Boy (1937 stageplay) written by Clifford Odets  
 Golden Boy (1939 film) Starring William Holden and Barbara Stanwyck  
 Gentleman Jim (1942 film) Starring Errol Flynn  
 Body and Soul (1947 film) Starring John Garfield  
 Champion (1949 film) Starring Kirk Douglas  
 The Set-Up (1949 film) Starring Robert Ryan  
 Day of the Fight (1951 short subject) first film directed by Stanley Kubrick  
 On the Waterfront (1954 film) Starring Marlon Brando  
 The Harder They Fall (1956 film) Starring Humphrey Bogart  
 Somebody Up There Likes Me (1956 film) Starring Paul Newman

Requiem for a Heavyweight (1956 TV play) Starring Jack Palance, written by Rod Serling  
 Requiem for a Heavyweight (1962 film) Starring Anthony Quinn, Jackie Gleason and Mickey Rooney  
 Kid Galahad (1962 film) Musical starring Elvis Presley  
 Golden Boy (1964 musical stageplay)  
 The Great White Hope (1970 film) Starring James Earl Jones and Jane Alexander  
 Fat City (1972 film) Starring Stacey Keach and Jeff Bridges  
 Rocky Oscar winning movie in 1976 and its sequels, starring Sylvester Stallone (also scriptwriter)  
 The Main Event (1979 film) Starring Barbra Streisand and Ryan O'Neal  
 The Champ (1979 film) Starring Jon Voight, Faye Dunaway, and Rick Schroeder; remake of 1931 film  
 The Prize Fighter (1979 film), starring Don Knotts and Tim Conway  
 Raging Bull (1980 film) A classic boxing movie, starring Robert De Niro and Joe Pesci  
 Spike of Bensonhurst (1988 film)  
 Tokyo Fist (1995 film)  
 The Great White Hype (1996 film) Starring Samuel L Jackson and Jeff Goldblum  
 When We Were Kings (1997 film) The story of Muhammad Ali and George Foreman and The Rumble in the Jungle  
 24 7: Twenty Four Seven (1997 film) Starring Bob Hoskins  
 Don King: Only in America (TV movie) Starring Ving Rhames  
 The Hurricane (1999 film) Starring Denzel Washington as middleweight Rubin Carter  
 Billy Elliot, about a young dancer whose father and brother wanted to become a boxer, like Ken Buchanan  
 Girlfight (2000 film)  
 Ali (2001 film) Starring Will Smith  
 Champion (2002 film) South Korean film about Duk Koo Kim, a South Korean boxer who died after a bout against Ray Mancini  
 Undefeated (2003 TV movie) Starring John Leguizamo  
 Million Dollar Baby (2004 film) Multiple Oscar winner about a female boxer directed by Clint Eastwood  
 Virgin Gloves (2004) The first novel about a Gay prizefighter, by Alex Hutchinson  
 Against the Ropes (2004 film) Starring Meg Ryan as Jackie Kallen famous female boxing promoter  
 Black Cloud Directed by and starring Rick Schroder  
 The Calcium Kid (2004 film)  
 Unforgivable Blackness: The Rise and Fall of Jack Johnson (2004 film) Documentary directed by Ken Burns  
 Cinderella Man (2005 film) Based on the true story of Jim Braddock starring Russell Crowe.  
 The Contender 2005 Reality TV series  
 Hajime no Ippo A manga/anime about a young featherweight boxer  
 Activision Boxing, one of the first console games about boxing  
 Mike Tyson's Punch-Out!! A Nintendo game. Later adapted to SNES as Super Punch-Out!!

EA Sports Fight Night 2004, Fight Night: Round 2 and Fight Night: Round 3 (formerly Knockout Kings).

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## Notes

1. ‘ "Accidents Take Lives of Young Alumni" (July/August 2005). *Illinois Alumni*, 18(1), 47.

## Darts

*Darts* is a game, or rather a variety of related games, in which darts are thrown at a circular target (dart board) hung on a wall. Though various different boards and games have been used in the past, the term 'darts' usually now refers to a standardized game involving a specific board design and set of rules.

As well as being a professional competitive sport, darts is a traditional pub game, commonly played in the United Kingdom (the first to officially recognize darts as a sport), the Netherlands, Israel, the Scandinavian countries, the United States and elsewhere.

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## **Dart boards**

Dart boards are usually made of sisal fibers and each section is lined with thin metal wire. The numbers indicating the various scoring sections of the board are normally made of wire, especially on tournament-quality boards, but may be printed directly on the board instead.

### **Height and distance**

In the standard game, the dart board is hung so that the bullseye is 5 ft 8 in (1.73 m) from the floor, eye-level for a six foot man. The oche (pronounced 'ock-ey'), or throwing line behind which the player must stand, is 7 ft 9.25 in (2.37 m) from the face of the board, though a few British pubs set it at 8 ft (2.44 m) or 8 ft 6 in (2.59 m). For casual play, it is not uncommon to find the oche somewhat further or closer than the tournament standard, either due to rounding of the specified distance (to 7.5 or 8 feet), or just due to measurement error (such as measuring from the wall, rather than using a plumb line to measure from the board face).

### **History**

Various designs of dartboard have been used, and regional variations remain in parts of Staffordshire, Lancashire and Yorkshire. In particular, the Yorkshire board differs from the standard board in that it has no treble ring and has a single, inner bull. The dartboard itself may have its origins in the cross section of a tree, although some historical records suggest that the first standard dartboards were the bottoms of wine casks, hence the game's original name of "butts". There is speculation that the game originated among soldiers throwing short arrows at the bottom of the cast or at the bottom of trunks of trees. As the wood dried, cracks would develop, creating "sections". Soon, regional standards emerged and many woodworkers supplemented bar tabs by fabricating dart boards for the local pubs.



The numbering plan known by many today has a 20 on top; however, a great many other configurations have been used throughout the years and in different geographical locations. By most accounts, the numbering layout was devised by Brian Gamlin in 1896 to penalize inaccuracy. Although this applies to most of the board, the left-hand side (near the 14 section) is preferred by beginners, for its concentration of larger numbers. Mathematically, removing the rotational symmetry by placing the "20" at the top, there are  $19!$ , or 121,645,100,408,832,000 possible dartboards. There are many different layouts that would penalize a player more than the current setup; however, the current setup actually does the job rather efficiently [1].

## Scoring

The standard dartboard is divided into twenty numbered sections, scoring from one to 20 points, by wires running from the small central circle to the outer circular wire. Circular wires within the outer wire divide each section into single, double and triple areas.

Various quite different games can be played (and still are played informally) using the standard dartboard. However, in the official game, any dart landing inside the outer wire scores as follows:

- Hitting one of the large portions of each of the numbered sections, traditionally coloured black and yellow, scores precisely the points value of that section.
  - Hitting the thin outer portions of these sections, coloured red and green, scores double the points value of that section.
  - Hitting the thin inner portions of these sections, roughly halfway between the outer wire and the central circle and again coloured red or green, scores triple (or 3x) the points value of that section.
- The central circle is divided into a green outer ring worth 25 points (known as "outer" or "outer bull") and a red inner circle (usually known as "bull", "inner bull" or "double bull"), worth 50 points. The term "bullseye" can mean either the whole central part of the board or just the inner red section.
  - Hitting outside the outer wire scores nothing.
  - Any dart that does not remain in the board after throwing (for example, a dart that hits a wire and bounces out of the board or drops out with the impact of a later throw) also scores nothing. Variations on this rule exist - some judge that a dart which obviously hits a scoring section but then subsequently drops out will count if caught before it hits the floor or if it rebounds behind the throwing line before touching the ground it may be thrown again. In professional rules, a dart's tip must be touching a scoring section for the dart to count.

The highest score possible with 3 darts is 180, obtained when all three darts land in the triple 20. In the televised game, the commentator frequently announces a score of 180 in exuberant style.

## Soft tip boards and darts

A relatively new type of board is the soft tip board, which is made of plastic and cast with small holes (about .08 inches, or 2 mm) in the face. The soft tip darts are, in general, lighter than the steel tipped darts, and have a lower maximum allowable weight. The soft tip darts have semi-rigid tapered plastic tips that will penetrate the holes cast in the board to a depth of about .25 inches (6 mm) before lodging securely in place. The darts may be removed from the board by a gentle twist and pull. While still dangerous, soft tip darts are less likely to cause serious injury if they hit a person, and are far less likely to damage items they hit if they bounce out of the board. Since the plastic tips are prone to chip, bend and break with use, even inexpensive soft tip darts are made with replaceable tips, and replacement tips are sold in quantity.

Other than the difference in maximum allowable weights of darts, soft tip dart rules are the same as those for steel tip darts. One big advantage of the soft tip dart for the recreational player is the availability of electronic boards that will detect and score each dart hit, and track the score of each player. Many of these electronic dart boards have dozens of different dart games and variations programmed in, and will even coach a player as to where to aim his next throw.

## Playing darts

A game, or "leg", of darts is usually contested between two players who take turns in throwing up to three darts. Starting from a set score, usually 501 or 301, a player wins by reducing his score to zero. The last dart in the leg must hit either a double or the inner portion of the bullseye, which is the double of the outer bull, and must reduce the score to exactly zero. Successfully doing so is known as "doubling out" or "checking out". A throw that would reduce a player's score to one or below zero does not count, his turn ends, and his score is reset to what it was before that turn. (Sometimes in friendly games a player is allowed a dog's chance by "splitting the eleven" if he has a remaining score of 1. This required placing a final dart between the legs of the number eleven in the normally non-scoring part of the board). Since the double areas are small, doubling out is usually the most difficult and tense part of a leg. Longer matches are often divided into sets, each comprising some number of legs.

Although playing straight down from 501 is standard in darts, other variations exist, notably "doubling in", where players must hit a double to begin scoring, with all darts thrown before said double contributing nothing to his score. Other games that are commonly played differ in their scoring methods. These include "Round The Clock", "Killer" and the more complicated Cricket.

In Round the Clock, players must hit each numbered section in turn, finishing with a bull to win. Far from being a beginner's game, Round The Clock is a good training games since it practices targeting all areas of the board, a skill which is essential when finishing a classic leg. This can be taken further by only counting the double or the treble rings.

An additional rule which can add some spice to playing Round The Clock with two or more players is that any dart that falls in a bed other than the one aimed for is forfeited to any player(s) awaiting that number.

In Killer, a number of players "own" a number on the dartboard (often selected by throwing a dart with their non-playing arm) and compete to build up "lives" (by hitting that number) until a threshold is reached (usually 4 or 6) before attempting to "kill" other players by removing the lives they have built up (by hitting those other players' numbers) until a single player is left.

## **Professional organizations**

Of the two professional organisations, the British Darts Organisation (BDO), founded 1973, is the older. Its tournaments are often shown on the BBC in the UK, and on SBS6 in the Netherlands. The BDO is a member of the World Darts Federation (WDF) (founded 1976), along with organisations in some 60 other countries worldwide. The BDO organises all British darts players, with the exception of a small group of professionals.

In 1994 a breakaway organisation was formed, initially known as the World Darts Council (WDC) but shortly after known as the Professional Darts Corporation (PDC). Over the years a continued exodus of top players from the BDO has established the PDC as the home of Professional Darts. An influx of sponsors and rapid expansion of television coverage continues. Tournaments are broadcast in the UK on Sky Television, - in the Netherlands by Sport One with many other tv stations now involved across the globe.

The PDC tournaments often have higher prize money and without doubt the best player in the world - 13 times World Champion Phil Taylor. Cementing the PDC's dominance at the very top of the game in early 2006, four times BDO world champion Raymond van Barneveld moved to the PDC.

## **Professional competitions**

The major tournament within both the PDC and BDO organisations are the World Championships which take place at the start of each year. The BDO tournament has been running since 1978, the PDC tournament since 1994 and in 2006 the first prize offered and total prize fund of the PDC World Championship was double that offered by the BDO tournament. (£100,000 to the PDC Champion, £50,000 to the BDO Champion).

The other main professional tournaments are ; Darts Premier League, UK Open, Las Vegas Desert Classic, World Matchplay, World Grand Prix (PDC - all televised live and in their entirety)

International Darts League, World Darts Trophy, World Masters (BDO/WDF - with the former two only broadcast on Dutch tv (SBS6), and the latter broadcast on SBS6 and by the BBC in the UK)

The WDF World Cup (for national teams) has been played bi-annually since 1977.

The Professional Darts Corporation has launched the World Series of Darts for the first time in the United States. The World Series of Darts, and its \$1 million prize will showcase Pro Darts in the United States. The event will be held at the Mohegan Sun casino in Connecticut May 19-21, 2006 and will be subsequently televised on ESPN this summer.

### **Amateur competition**

- The *American Darters Association* offers league organization for casual singles players throughout the United States (<http://www.adadarters.com/>)
- The *American Darts Organization* is the world's largest national dart league, facilitating the organization of members' regional divisions, and promoting the sport via pub-based teams and individuals across the country (<http://www.adodarts.com/>)

### **Betting**

On premises where alcohol is consumed, English law has long permitted betting only on games of skill, as opposed to games of chance, and then only for small stakes. An apocryphal tale relates that in 1908, Jim Garside, the landlord of the Adelphi Inn, Leeds, England was called before the local magistrates to answer the charge that he had allowed betting on a game of chance, darts, on his premises. Garside asked for the assistance of local champion William "Bigfoot" Anakin who attended as a witness and demonstrated that he could hit any number on the board nominated by the court. Garside was discharged as the magistrates found darts, indeed, to be a game of skill. More recently, in keeping with Darts' strong association with pubs and drinking, matches between friends or pub teams are often played for pints.

### **Famous players**

- Dave Whitcombe *Big Dave* - The 80's legend, twice World Masters champion and News of the World Champion.
  - **John Part** *Darth Maple*
- Mark Dudbridge *The Flash*
- Dennis Ovens *The Heat*
- Alan Warriner-Little *The Iceman*
- Colin Lloyd *Jaws*
- Chris Mason *Mace the Ace*
  - **Richie Burnett** *The Prince of Wales*
- Andy Fordham *The Viking*
- Wayne Mardle *Hawaii 501*
  - **Dave Askew** *Diamond Dave*

- Peter Manley *One Dart*
- Kevin Painter *The Artist*
- Roland Scholten *The Tripod*
  - **Bob Anderson The Limestone Cowboy.**
- Eric Bristow *Crafty Cockney.*
- Mervyn King *The King*
- Steve Beaton *The Adonis.*
- Bobby George
- Trina Gulliver - First women's darts champion
- Arnaud van der Graaf *The Enemy*
- Jelle Klaasen - Youngest dart champion at 21 years of age
  - **John Lowe Old Stoneface.**
- Phil Taylor *The Power* - 2 times BDO World Champion, 11 times PDC World Champion
  - Raymond van Barneveld *Barney* - 4 times BDO World Champion
  - Jocky Wilson
  - Dennis Priestley *The Menace* - 1 time BDO World Champion, 1 time PDC World Champion

## See also

- Cricket - An alternative game using the standard dart board.
- 

## Cross-country skiing

*Cross-country skiing* (also known as *XC skiing*) is a winter sport popular in many countries with large snowfields, primarily Northern Europe and Canada. The popularity of the sport has been quickly growing in the United States.

Cross-country skiing is part of the Nordic skiing sport family, which also includes ski jumping, and a combination sport of cross-country skiing and ski jumping called Nordic combined. Free-technique cross-country skiing is also the method of locomotion in the combination sport of Biathlon, which adds rifle marksmanship to skiing.

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## **A hobby and a sport**

As a hobby, cross-country skiing may be viewed as a kind of "bushwalking on skis", where skiers tackle trails of various lengths and difficulties. Some skiers stay out for extended periods using tents and equipment similar to bushwalkers/hikers, whereas others take relatively short trips from ski resorts on maintained trails.

As a sport, cross-country skiing is one of the most difficult endurance sports, as its motions use every major muscle group and it (along with rowing and swimming) is one of the sports that burn the most calories per hour in execution. Modern cross-country ski competition is experiencing a revolution that is resulting in greater compatibility with audiences which began with the addition of the Sprint event to the World Cup and Olympic competitions. Today more and more races are being held in audience friendly formats, such as mass start, sprint, relay and pursuit (a race that involves switching skis and styles halfway through the race). The modern events in which athletes compete in at the World Cup and Olympics are (distances presented in Female/Male format): 1km Sprint, 2X1km Team Sprint, 10km/15km Individual Start, 15km/30km Pursuit, 30km/50km Mass Start and the 4x5km/4x10km Relay.

## **Sports events**

Today, there are several types of cross-country competitive events, involving races of various types and lengths, as well as biathlon, involving a combination of cross-country skiing and target shooting with a rifle.

The Winter Olympics, the FIS World Championships and the FIS World Cup events (including the Holmenkollen) have long been a showcase for the world's fastest cross country skiers. There are also special distance ski races, sometimes called ski marathons, like Vasaloppet in Sweden and Birkebeineren in Norway. The skiing styles in these races might be fixed, or, in case of the so-called "double pursuit" event, the two styles are used each in their own separate half of the race (with a change of equipment in "pit stops" half way through).

Cross-country skiing at the Winter Olympics  
FIS Nordic skiing World Championships (including XC skiing)  
XC skiing World Cup (weekly races throughout the winter seasons)

## **History**

Cross-country skiing originated in Fennoscandian countries in prehistoric times. It was still widely practiced in 19th century as a way of moving from place to place in winter. Elks, deers and other animals were hunted by skiing. Nowadays almost everyone in Finland and Norway have and regularly use skis.

Skiing may have also been practiced by Native Americans for similar lengths of time, although the Norwegian emigrants Snowshoe Thompson and Jackrabbit Johannsen are widely credited for introducing the sport to North America.

This form of skiing has been used by explorers by means of transport, and all Nordic armies have ski-trained infantry for winter operations. Skies gave important mobility to the Finnish army in Winter War that allowed the small groups of Finns to beat large armies of Russians. Similar tactics that utilizes skies has been used in many times by the Finns and Karelians in the past. Pre-modern skiing troops were armed with crossbows and ski poles which had a spearhead on the other end.

Traditionally, all of the equipment was made of natural materials: wooden skis and bamboo poles with leather hand straps. Footwear was usually sturdy leather boots with thick soles. Bindings evolved from simple straps made of twisted wood-based thread, to the so-called Kandahar binding with the fastening of both the boot's front and back, to the 'Rat Trap' front-only binding, which is today known as the Nordic norm, and has evolved in various modern bindings.

## **Equipment: Skis and poles**

The skis are long and thin, to distribute the weight of the skier and allow the skier to move quickly. Typical ski dimensions are 2 metres in length, about 5 centimetres in width and one to four centimetres in thickness, depending on the ski brand and which point of the ski is measured. Depending on the ski design and purpose, they are fit to the skier based on height or weight.

Like alpine skiing, cross-country skiers carry two poles, usually made of aluminium or fiberglass. More expensive poles are made of graphite or carbon fiber or some other strong but lightweight material. Poles have a spike at the end to provide a fixed pivot when the pole

penetrates through to a hard surface, and a plastic web or disc (called the basket), to provide extra purchase in snow and to ensure the pole doesn't sink too deeply.

The toe of the skier's footwear is attached to the ski with a binding, while the heel remains free.

Equipment differs according to skiing technique. Skating or freestyle poles are usually longer than those used for the classic technique. Typically, skating poles should be long enough to reach the skier's chin or as far as the eyebrows, depending on the skier's preference. In contrast, classic ski poles should reach the skier's armpit, similar to the fit of an axillary crutch..

## **Equipment: Bindings/boots**

Three different binding systems are used in modern cross-country skiing:

- NNN (New Nordic Norm) – including the new R4 NIS variant
- SNS (Salomon Nordic System) Profil
- SNS Pilot

Older styled three-pin bindings (Nordic Norm), with or without cables, are still used by backcountry and Telemarking enthusiasts.

### **NNN**

New Nordic Norm (NNN) bindings, made by Rottefella, Rossignol, and Atomic, can range from BC (Backcountry) to the R3 Skate and R3 Classic to the NNN R4 NIS, which require a special plate on the skis to be mounted. Boots compatible with these bindings are made by Alpina Sports, Atomic Skis and Rossignol. The R3 and R4 are generally the choice for World Cup Racers using NNN. These are distinguished from SNS (Salomon and Fischer) bindings in that all bindings in the NNN system have two ridges that stick out from the bottom of the binding, with corresponding slots in NNN boots. There is much debate over which is the superior binding system, SNS or NNN. Overall, the differences between the NNN and SNS binding systems are miniscule to the average skier; the choice should come down to which binding fits with the boot that fits the best.

The R4 NIS binding, made by Rottefella and Rossignol, is the top of the line NNN binding. These bindings are compatible with any NNN boot, but can only be used on Rossignol X-IUM or Madshus Hypersonic Skis—the companies' high-end pro racing skis. Madshus is part of the Rottefella/Madshus/Alpina partnership, and that is the reason for Madshus skis having NIS bindings. The reason for only two different skis being able to use these bindings is that NIS bindings require a special plate only available on these skis. The interesting thing about these bindings is that the rear part can be pivoted back and forth on the plate to match the boots' length, therefore making better power transfer between the boots and the skis. The NIS bindings made their debut to the general public in 2005.



## **SNS Profil**

Salomon Nordic System (SNS) bindings, made by Salomon and Fischer, however, have their advantages too. Boots that are compatible with the SNS Profil system are made by Salomon, Fischer, Adidas, and Hartjes. SNS Profil bindings are used for both Skating and Classic. As opposed to the SNS Pilot's two axes, these boots have only one axis at the front of the sole. Pilots are used by many different racers on the World Cup Circuit. Profil bindings are the standard binding for SNS users, its only competition being the SNS Pilot system. Profil comes in "Equipe" models for racing, "Active" for recreational racing/combination, Auto Touring, and Back Country.

## **SNS Pilot**

SNS Pilot bindings, compatible with Salomon, Fischer, Adidas and Hartjes boots, are only used for Skate Skiing. The idea for these bindings came from Bjørn Dæhlie. Pilots are used mostly by elite skiers at the Collegiate/Olympians/World Cup/National level, although it is common to find High School/Citizen Racers with these bindings and their counterpart boots. Pilots are more expensive than Profils at about 100 dollars for a pair, and can only be used for Skating because there are two axes. In Pilot boots, the two axes, one positioned about 1" behind the other, click into two different slots in the Pilot binding. Profil boots only have one axis and therefore, cannot fit into Pilot bindings. However, Pilot boots can fit into any Profil bindings, due to a small space behind the front of the boot for the other axis. Pilots have proven themselves as good Skate bindings due to reduced ski motion in the air. Salomon released a Pilot bumperless classic binding at the end of the 2005-2006 season. The new binding doesn't have the ubiquitous classic bumper on all NNN and SNS classic bindings. These new boots and bindings provide a superior subtle kick through a spring loaded back slot for the back axis.

## **Waxes**

There are a wide variety of waxes for Nordic Skiing. The waxes can be classified into four main categories: glide waxes, kick waxes, klisters and waxes.

### **Glide wax**

Glide waxes are used to make a ski glide faster, and are applied by ironing onto the ski. Glide waxes range widely in price, depending on quality; racing waxes can be very expensive, over \$200 per pair at the national level. They are generally in the form of blocks, though they can be found as powders or liquids. Glide waxes are applied outside the kick zone of classic skis, or to the full length of skate skis. They are the only type of wax used on skating skis.

## Kick wax

The purpose of kick wax is to provide grip on snow when weight is transferred on a ski; they are used on classic skis only. Kick waxes are applied in the kick zone of classic skis if the ski is not a fish-scale, waxless ski.

Kick waxes are classified according to their hardness: harder waxes are for colder and newer snow. Using a wax that is too hard will not give sufficient grip, while wax that is too soft will cause the formation of an ice sole that slows the skier down. It is not uncommon to apply a new layer of wax if the weather changes, or when moving in altitude.

Difficulty of choosing correct kick waxes to different conditions is nowadays greatly reduced by grip wax tapes, which have a wide temperature range, and are easily applied to the ski bottom. Although these are not used by competitors, who prefer the optimum waxing, they have proven to be quite suitable for fitness and recreational purposes. Many high-level competitive teams have *ski tuners* whose job is to apply the ideal wax combinations for the conditions.

Kick waxes generate grip by penetrating into the snowflakes when the skier puts his weight on the ski. Colder snowflakes are harder, and so is newly fallen snow. The most appropriate wax is the one that is soft enough to generate grip, but also hard enough not to accumulate snow and create a sole.

Waxes are usually colour-coded by usage temperature: the most common are red for above 0°C, and blue for below. There are many other colours for more specific temperature ranges, for instance violet for around 0°C, green for below -10°C, and white for below -15°C. The snow-temperature range given by the producer must be taken with a grain of salt, since new snow will require a harder wax.

Guessing the right hardness can be quite difficult, and the varying condition of the snow can make the right choice wrong after a few hundred metres. Furthermore, the snow in the beaten track is usually much different from the one immediately surrounding it, and works best with a softer wax. If skis are poorly tuned, sometimes the skier can solve thin snow soles caused by a soft wax by beating the ski on the track after kicking; the opposite problem may be handled by skating.

## Klister

As the snow becomes older and snow flakes lose their sharpness, in case of re-freezing or of water, kick wax cannot provide any more grip, and it becomes useless. One must therefore resort to klister, which is basically a glue-like paste ("klister" actually means "glue" across all the three Scandinavian countries). Klister is discouraging for amateurs, as it is very sticky, it is easy to apply but very difficult to remove.

Professionals often maintain that klister is best applied with the palm of the hand, the hand can be cleaned by placing it in a glove and waiting while the klister is mysteriously removed; amateurs often resort to some object of the appropriate size. Since klister is an organic chemical, a non-polar solvent (such as gasoline) or a soap is necessary to remove it.

Stores often sell purpose-made solvent to clean skis. These should be used with care, as they are both flammable and toxic if inhaled.

Klister is also colour-coded, with red klister for wet snow and blue klister for icy snow.

## **Waxless skis**

In recent years, waxless skies have carved a niche in the market among casual skiers. Waxless skis have a fish scale, cross-hatched or ridged pattern in the kick zone to provide grip. A waxless ski is inferior to a finely tuned waxed ski, but does not require the sometimes time-consuming and sometimes costly selection and application of kick wax or klister. However, they do require a glide wax to keep them sliding smoothly and protecting the surface from dirt and ice build-up. There are specialty liquid wax products on the market manufactured for this purpose; standard wax should never be applied to waxless skis due to extreme difficulty in later removing it from the grooved or notched kick zone.

Waxless skis are better suited to recreational skiers who simply want to get out on the trail with minimal time spent on maintenance, as they generally produce too much drag for competitive skiers.

## **Waxtape**

An alternative for kick waxes is waxes; it's a gluetape that is fastened at the kick zone. Tapes are replaced when they don't give enough grip. Recreational skiers find tapes much easier to apply and last much longer than ordinary kick waxes. They are, however, harder to remove than ordinary kick waxes.

## **Styles/Techniques**

There are three main styles used in cross-country skiing: classic, skating and telemarking. Specially adapted equipment is available to suit each. Another style growing in popularity is skijoring. In skijoring, the skier is pulled over the snow by one or more dogs. Both classic and skating techniques are used by skijorers.

### **Classic**

The classic style is often used on prepared trails (pistes) that have pairs of parallel grooves cut into the snow.

Skis have camber and should leave the centre section of the ski clear of the snow when the skier's weight is evenly distributed between the pair. The centre section of a classic ski will either have "fish scales", or ski wax that will stick to the snow (called the "kick zone" or

"grip zone" of the ski). When full weight is transferred to a single ski the kick zone comes into contact with the snow. Glide wax is used on the tails and tips of the skis.

Long, narrow and light skis are usually used. When skiing away from prepared trails, a much wider ski is usually used. In flat regions, such as parts of Finland, skis exceeding 3 or 4 m in length are sometimes used.

There are four core techniques: herringbone, diagonal stride, double pole with kick, and double pole.

- Herringbone: This technique is used for climbing steep hills. A walking or running action with splayed skis and without any glide. The poles are planted alternately behind the skis. A distinctive herringbone pattern is left in the snow.
- Diagonal stride: An exaggerated running action with parallel skis and a glide on each stride. The poles are planted alternately on the opposite side to the kick. For experienced skiers this technique is used uphill. Less experienced skiers also employ the diagonal stride on the flat.
- Double pole with kick: Both poles are planted simultaneously to give a powerful thrust. As the poles swing forwards again a single leg kick is made. This technique is used when the skier is still moving too quickly to diagonal stride, but is having difficulty double poling (typically on slight uphill or at the bottom of a long hill, just before switching to diagonal stride).
- Double pole: As above but without the kick. During some long races, in reasonably flat terrain, competitors double pole for the majority of the course (an example of this is the Swedish Vasaloppet).

On downhill slopes a tucked position (hocke, from the German word) is assumed, in a similar manner to downhill skiing.

## **Free/Skating**

Skate skiing[1] involves the skier pushing one ski outward with the ski angled, so that the inner edge of the ski is driven against the snow, much like an ice skater. As in classic skiing, transferring weight completely from one ski to the next is essential to learning to skate. Those who have learned to ice skate or rollerblade may find ski skating technique easier to learn than classic skiing.

Skate skiing can be done either with skis specifically designed for skating or 'combi' skis for both skating and classic. Similarly, specialized skating boots or combi boots can be used. Skate skis tend to be shorter and stiffer than those used in classical technique, and poles longer. Neither fish scale skis nor grip wax are used.

Like gears on a bicycle, skating has different techniques for different terrain and speeds. Confusingly there is no internationally accepted naming convention for these techniques:

- Gear 1 (aka Diagonal V, Single-poling or Coaches Skate): Similar to the classic herringbone but with a short glide on each ski. Used for climbing steep hills.
- Gear 2 (V1, Offset Skate): Slightly off-set double-pole on every other leg. Used for hill climbing.

- Gear 3 (V2, 1-skate): Double-pole on every leg. Used on the flat or uphill.
- Gear 4 (V2 alternate, Open Field Skate, 2-skate): Double-pole on every other leg. Used on the flat or downhill.
- Gear 5 (V Skating): Skating without using the poles. Used downhill.

Skating technique is only suitable for use on prepared trails (pistes), firm and smooth snow or snow crust and frozen snow-covered lakes or rivers.

Skating is faster and a more intense exercise than classic skiing, except in extremely cold conditions where classic skiing may approach skating in speed. Adoption of the skating technique varies from country to country. In some countries the majority of non-professional racers now skate, although top skiers continue to learn and train in both styles.

The distinction between classic technique and free technique is made in competition i.e. a race will be designated as classic or free.[2] In the case of the former only those propulsion techniques that are considered 'classic' are allowed whereas in the latter the competitors are free to use any technique although the majority of competitors will opt to skate. Large races will often have both skate and classic divisions and award prizes in both categories.

## **Telemark**

The Telemark technique is particularly suited to backcountry skiing (off piste cross-country skiing). While first and foremost it is a technique for descending, for those with dedicated equipment it is effectively a separate branch of skiing that takes place in the backcountry (off piste).

## **Summer skiing**

Roller skiing is a summer cross-country skiing alternative. While it is used mostly for training, there is also a Rollerskiing World Cup. Glaciers provide year round skiing in many areas of Norway, Alaska and Canada. Finland has pioneered the building of ski tunnels. A 1,300m long tunnel was opened in Torsby, Sweden in 2006.

## **Notes**

1. ^ The free technique in XC skiing is not to be confused with freestyle, which describes ski sport where the competitors compete over a mogul course and by performing aerial gymnastics such as spins after launching from a short ramp in the snow.
2. ^ Recent developments in the sport include "double pursuit" races where the competitors complete the first part of the event using the classic technique and the second part using the free technique.

# Biathlon

*Biathlon* (not to be confused with duathlon) is a term used to describe any sporting event made up of two disciplines. Biathlon, however, usually refers specifically to the winter sport that combines cross-country skiing and rifle shooting. Another popular variant is summer biathlon, which combines cross-country running with riflery.

Unsurprisingly, biathlon events are broadcast most regularly where the sport enjoys its greatest popularity, namely Germany (ARD, ZDF), Norway (NRK), Finland (YLE), Sweden (SVT), Russia (RTR), Belarus (TVR), Slovenia (RTV), Estonia (ETV), and Bulgaria (BNT); it is also broadcast on European-wide Eurosport. Some events are broadcast on U.S. cable channel OLN.

The broadcast distribution being one indicator, the constellation of a sport's main sponsors usually gives a similar, and correlated, indication of popularity: for biathlon, these are the Germany-based companies E.ON Ruhrgas (energy), Krombacher (beer), and Viessmann (boilers and other heating systems).

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## Concise history

The sport has its origins in an exercise for Norwegian soldiers. The first known competition took place in 1767 when border patrol companies competed against each other. Gradually the sport became more common throughout Scandinavia as an alternative training for the military.

Called *military patrol*, the combination of skiing and shooting was demonstrated at the Olympic Winter Games in 1924, 1928, 1936 and 1948, but did not gain Olympic recognition then, as the small number of competing countries disagreed on the rules (see also Governing body, below). During the mid-1950s, however, biathlon was introduced into the Russian and Swedish winter sport circuits and was widely enjoyed by the public. This newfound popularity aided the effort of having biathlon gain entry into the Winter Olympics, where it has later become one of the most cherished sports.

The first World Championship in biathlon was held in 1958 in Austria, and in 1960 the sport was finally included in the Olympic Games. At Albertville in 1992, women were first allowed in Olympic biathlon.

The competitions from 1958 to 1965, using NATO calibers of 3.08mm, then a Large bore 0.223 before the 0.22LR (5.56mm) was standardized in 1978. The ammunition was carried in a belt worn around the competitor's waist. With the only competition being the Men's 20km Individual, four different ranges and firing distances of 100m, 150m, 200m, and 250m. The distance was reduced to a single 150m station with the addition of the Relay in 1966. The shooting range was further reduced to a single 50m station in 1978 with the mechanical targets being making their debut at the 1980 Winter Olympics in Lake Placid.

## Governing body

In 1948, the **Union Internationale de Pentathlon Moderne et Biathlon (UIPMB)** was founded, to standardise the rules for biathlon and modern pentathlon. In 1993, the biathlon branch of the UIPMB created the **International Biathlon Union (IBU)**, which officially separated from the UIPMB in 1998.

Presidents of the UIPMB/IBU:

1948–1949: Tom Wiborn (Sweden)

1949–1960: Gustaf Dyrssen (Sweden)

1960–1988: Sven Thofelt, (Sweden)

1988–1992: Igor Novikov (USSR/Russia)

From 1992: Anders Besseberg (Norway)

## Champions

The following articles list major international biathlon events and medalists. Contrary to the Olympics and World Championships (BWCH), the World Cup (BWC) is an entire winter

season of (mostly) weekly races, where the medalists are those with the highest sums of World Cup points at the end of the season.

Biathlon Olympic Games  
Biathlon World Championships  
Biathlon World Cup

## **Rules and equipment**

The complete rules of biathlon is given in the official IBU rule book (see External links, below). However, the concise description given below, along with the section on competition format, should be enough for a spectator to understand what is going on at a biathlon stadium whether actually being there or at home watching a televised biathlon event.

## **Basic concepts**

In short, a biathlon competition consists of a race in which contestants ski around a cross-country track, and where the total distance is broken up by either two or four shooting rounds, half in prone position, the other half standing. Depending on the shooting performance, extra distance or time is added to the contestant's total running distance/time. As in most races, the contestant with the shortest total time wins.

For each shooting round, the biathlete must hit five targets; each missed target must be "atoned for" in one of three ways, depending on the competition format:

- by making a skiing round in a 150 m penalty loop, typically taking 20–30 seconds for top-level biathletes to complete (running time depending on weather/snow conditions),
- by having one minute added to one's total skiing time, or
- by having to use an "extra cartridge" (placed at the shooting range) to finish off the target; only three such "extras" are available for each round, and a penalty loop must be made for each of the targets in order to keep track of the contestants' progress and relative standing throughout a race, split times (intermediate times) are taken at several points along the skiing track and upon finishing each shooting round. The large display screens commonly set up at biathlon arenas, as well as the information graphics shown as part of the TV picture, will typically list the split time of the fastest contestant at each intermediate point and the times and time differences to the closest runners-up.

## **Skiing details**

All cross-country skiing techniques are permitted in biathlon, which means that the free technique is usually the preferred one, being the fastest. No other equipment than skis and



ski poles may be used for moving along the track. Minimal ski length is 4 cm less than the height of the skier.

## **Shooting details**

The biathlete carries the 3.5 kg small bore rifle including ammunition in magazines on her/his back during the race. The rifles use .22 LR (5.56 mm) ammunition and are bolt action.

The target range shooting distance is 50 m or 160 feet. There are five circular targets to be hit in each shooting round. When shooting in the prone position the target diameter is 45 mm or 1.7 inches, when shooting in the standing position the target diameter is 115 mm or 4.5 inches. On all modern biathlon ranges, the targets are self-indicating, in that they flip from black to white when hit, giving the biathlete as well as the spectators instant visual feedback for each shot fired.

## **Competition format**

### **Individual**

The 20 km Individual race (15 km for women) is the oldest biathlon event. The biathlete shoots four times at any shooting station, in the order of prone, standing, prone, standing, totalling 20 targets. For each missed target a fixed penalty time, usually one minute, is added to the skiing time of the biathlete. Competitors' starts are staggered, normally by 30 seconds.

### **Sprint**

The sprint is 10 km for men and 7.5 km for women. The biathlete shoots twice at any shooting station, once prone and once standing, for a total of 10 shots. For each miss, a penalty loop of 150 m must be skied before the race can be continued. As in the Individual competition, the biathletes start in intervals.

### **Pursuit**

In a Pursuit, biathletes' starts are separated by their time differences from a previous race,[1] most commonly a Sprint. The contestant crossing the finish line first is the winner. The distance is 12.5 km for men and 10 km for women, there are four shooting bouts (two prone, two standing, in that order), and each miss means a penalty loop of 150 m. To prevent awkward and/or dangerous crowding in the skiing track, and undercapacity at the shooting range, World Cup Pursuits are held with only the 60 top ranking biathletes after the

preceding race. The biathletes shoot at the station in the position they arrived (Arrive at the station in 5th place, you shoot at station five.) for all shooting bouts.

### **Mass start**

In the Mass start, all biathletes start at the same time and the first across the finish line wins. In this 15 km (12.5 km for women) competition, there are four bouts of shooting (two prone, two standing, in that order) with the first shooting stage being at the station your bib is assigned (Bib #10 shoots at Station #10 regardless of position in race.) with rest of the shooting stages being at the station in the position they arrived (Arrive at the station in 5th place, you shoot at station five.). As in Sprint races, competitors must ski one 150 m penalty loop for each miss. Here again, to avoid unwanted congestion, World Cup Mass starts are held with only the 30 top ranking athletes on the start line (half that of the Pursuit since here all contestants start simultaneously).

### **Relay**

The Relay teams consist of four biathletes, who each ski 7.5 km (men) or 6 km (women), with two shooting rounds; one prone, one standing. For every round of five targets there are eight bullets available, though the last three can only be loaded one at a time from trays at the shooting range. If after eight bullets there are still misses, one 150 m penalty loop must be taken for each miss. The first-leg participants start all at the same time, and as in cross-country skiing relays, every athlete of a team must touch the team's next-leg participant to perform a valid changeover. On the first shooting stage of the first leg, the participant must shoot in the station of their assigned bib number (Bib #10 shoots at Station #10 regardless of position in race.), then for the remainder of the relay, the relay team shoots at the station in the position they arrived (Arrive at the station in 5th place, you shoot at station five.).

### **Mixed relay**

The most recent addition to the number of biathlon competition variants, the Mixed relay, is similar to the ordinary Relay but for the composition of the teams, each of which consists of two women and two men. Legs 1 and 2 are done by the women, legs 3 and 4 by the men. The legs are 6 km, as in the ordinary women's Relay competition.

## Team (obsolete)

A team consists of four biathletes, but unlike the case of the Relay competition, all team members start at the same time. Two athletes must shoot in the prone shooting round, the other two in the standing round. In case of a miss, the two non-shooting biathletes must ski a penalty loop of 150 m. The skiers must enter the shooting area together, and must also finish within 15 seconds of each other, otherwise a time penalty of 1 minute is added to the total time. Since 2004, this race format has been obsolete at the World Cup level.

## Biathlon venues

World Cup events and World Championships in biathlon have traditionally been held at the following relatively few locations. (Due to the complicated shooting range equipment, which absolutely has to work in order to hold successful races, biathlon is a highly demanding sport for organisers.)

## Other Biathlon variants

Two common variations on biathlon are *summer biathlon*, where skiing is replaced by a cross-country run, and *archery biathlon* (or ski archery), where the rifle is replaced by a *recurve bow*. There have also been summer competitions in *roller-ski biathlon*, *mountain bike biathlon* and *orienteering biathlon*.

## Notes

1. ^ To be precise; the Pursuit competition start intervals are determined by common rounding to the nearest whole second of the biathletes' time differences from the previous race—the amount of time each biathlete lagged after the winner to the finish line.

## Prediction market

*Prediction markets* are speculative (i.e., betting) markets created for the purpose of making predictions. Assets are created whose final cash value is tied to a particular event (e.g., will the next US president be a Republican) or parameter (e.g., total sales next quarter). The current market prices can then be interpreted as predictions of the probability of the event or the expected value of the parameter. Other names for prediction markets include information markets, decision markets, idea futures, and virtual markets.

People who buy low and sell high are rewarded for improving the market prediction, while those who buy high and sell low are punished for degrading the market prediction. Evidence so far suggests that prediction markets are at least as accurate as other institutions predicting the same events with a similar pool of participants.

Public examples include TradeSports, the Iowa Electronic Markets, NewsFutures, Hollywood Stock Exchange and HedgeStreet. One of the oldest and most famous is the University of Iowa's Iowa Electronic Market. Since 1988, it has predicted the results of American presidential elections more accurately than traditional polls 75 percent of the time. The Hollywood Stock Exchange, a virtual market game established in 1996, in which players buy and sell prediction shares of movies, actors, directors, and film-related options, correctly predicted 35 of 2005's 40 big-category Oscar nominees and 7 out of 8 top category winners. HedgeStreet, designated in 2004 as a market and regulated by the Commodity Futures Trading Commission, enables internet traders to speculate on economic events.

These markets actually have a long and colorful lineage. Betting on elections was common in the U.S. until at least the 1940s, with formal markets existing on Wall Street in the months leading up to the race. Newspapers reported market conditions to give a sense of the closeness of the contest in this period prior to scientific polling. The markets involved thousands of participants, had millions of dollars in volume in current terms, and had remarkable predictive accuracy. See Paul Rhode and Koleman Strumpf (2004) [1] for additional details.

In July 2003, the U.S. Department of Defense publicized a Policy Analysis Market and on their website speculated that additional topics for markets might include terrorist attacks. A critical backlash quickly denounced the program as a "terrorism futures market" and the Pentagon hastily cancelled the program.

Prediction markets were championed in James Surowiecki's 2004 book *The Wisdom of Crowds*.

Prediction markets are rapidly becoming useful decision support tools for corporations. Several major companies in the US and in Europe are current users of internal prediction markets.

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## Theoretical challenges

Some academic research has focused on potential flaws with the prediction market concept. In particular, Dr. Charles F. Manski of the Northwestern University Department of Economics published a paper in 2004, "Interpreting the Predictions of Prediction Markets", in which he attempts to show mathematically that under a wide range of assumptions the "predictions" of such markets do not closely correspond to the actual probability beliefs of the market participants unless the market probability is near either 0 or 1. Manski suggests

that directly asking a group of participants to estimate probabilities may lead to better results. However, Steven Gjerstad (Purdue) in his paper "Risk Aversion, Beliefs, and Prediction Market Equilibrium" has shown that prediction market prices are typically very close to the mean belief of market participants if the distribution of beliefs is smooth (as with a normal distribution, for example). Justin Wolfers (Wharton) and Eric Zitzewitz (Stanford) have obtained similar results, and also include some analysis of prediction market data, in their paper "Interpreting Prediction Market Prices as Probabilities" In practice, the prices of binary prediction markets have proven to be closely related to actual frequencies of event in the real world. Relevant data has been published in Pennock et al's "The real power of artificial markets" (Science, 2001) and Servan-Schreiber et al's "Prediction Markets: Does Money Matter?" (Electronic Markets, 2004).

Prediction markets also suffer from the same types of inaccuracy as other kinds of market, i.e. liquidity or other factors not intended to be measured are taken into account as risk factors by the market participants, distorting the market probabilities. There can also be direct attempts to manipulate such markets. In the Tradesports 2004 presidential markets there was an apparent manipulation effort (an anonymous trader sold short so many Bush 2004 presidential futures contracts that the price was driven to zero, implying a zero percent chance that Bush would win. The only rational purpose of such a trade would be an attempt to manipulate the market in a strategy called a "bear raid". The manipulation effort failed, however, as the price of the contract rebounded rapidly to its previous level.) As more press attention is paid to prediction markets, it is likely that more groups will be motivated to manipulate them. However, in practice, such attempts at manipulation have always proven to be very short lived. In their forthcoming paper entitled "Information Aggregation and Manipulation in an Experimental Market" (2005) , Hanson, Oprea and Porter (George Mason U), show how attempts at market manipulation in fact end up increasing the accuracy of the market because they provide that much more profit incentive to bet against the manipulator.

Prediction markets may also be subject to speculative bubbles. For example in the year 2000 IEM presidential futures markets a flood of new traders in the final week of the election caused the market to gyrate wildly, making its "predictions" useless.

A common belief among economists and the financial community in general is that prediction markets based on play money cannot possibly generate credible predictions. However, the data collected so far disagrees.

Some experimental systems are underway to provide data on alternatives to prediction markets that seek to avoid some of the theoretical pitfalls mentioned earlier. For example, polling firm TIPP Online has experimented with "national zeitgeist" questions which ask participants who they think will win rather than who they will vote for personally. This proved to be a more stable and accurate predictor in the 2004 US presidential race than traditional polls. Another experimental system is Owise which directly asks participants to estimate probabilities on a wide range of future events, and rewards accurate performance with status, titles, and small cash prizes. Owise functions as a hive mind or a kind of neural network in which each "neuron" is a human being whose predictions are assigned a weight based on past performance. In fact, this is not so different from what naturally happens in a prediction market where those who make good predictions do profit at the expense of those who make bad predictions, thus progressively increasing their relative influence on the market through how much money they can bring to bear to back up their predictions. There

is currently not enough data and history to check how these alternatives will compare to prediction markets in terms of forecasting ability.

## **Commercial interest**

- Hewlett-Packard pioneered applications in sales forecasting and now uses prediction markets in several business units. Mentioned in academic publications from HP Labs. Also mentioned in Newsweek(October 2004)
- Corning, Eli Lilly, Abbott Labs, Siemens, Masterfoods, Arcelor and other global companies are listed as NewsFutures customers.
- Intel mentioned in Harvard Business Review (April 2003) in relation to managing manufacturing capacity.
- Microsoft is piloting prediction markets internally.
- France Telecom's Project Destiny has been in use since mid-2004, with very successful predictive behaviour.
- Google has confirmed that it uses a predictive market internally in its official blog.

## **Scratchcards**

A *scratchcard* (also called scratch off, scratch game, scratch ticket, scratcher or scratchie) is a small piece of card where an area has been covered by a substance that cannot be seen through, but can be scratched off. Under this area are concealed the items/pictures that must be 'found' in order to win. It is a form of gambling.

Simple scratchcards require the player to match three (or varying numbers) of the same prize amounts. If this is accomplished, they win that amount. More complicated scratchcards have several different ways to win on one card. Other scratchcards involve matching symbols, pictures or words, or are adaptations of popular (card-)games like Blackjack, Poker or Monopoly.

There are also online versions of the same game which utilize Flash and Java to simulate the experience on a computer.

Scratchcards are a very popular form of gambling due to their low cost. You can also win instantly as opposed to waiting for a drawing like many lotteries.

The low cost to buy a scratchcard is offset by the smaller prizes and lower expected value, compared to casino jackpots or lottery wins. There is a trend towards more expensive scratchcards (20-30USD) that have prizes in the millions of dollars.

The other recent change in scratchcards is the increasing attempts to predict which cards have prizes. In the past, scratchcards have been a random impulse purchase. Now, there are amateur and professional efforts to track the number of prizes won and cards sold so people have access to the current odds on all the games available.

# Online scratch card

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## Online Scratch Cards

*Online scratch cards* are the online version of *lottery scratch cards*. Online scratch cards are played by clicking on designated areas to reveal information used in determining the card's prize value. These online companies provide various cards, and there are a few dedicated companies that provide this activity.

Some *online scratch card* can offer better odds than the lottery scratch cards, usually purchased at stands. The company is responsible for determining the chance of winning.

## Legality

See online gambling for a discussion of the legality of playing online scratch cards.

## Online scratch card types

*Online scratch cards* can be divided into two groups: web-based scratch cards and download-based scratch cards; some companies offer both.

## Web-based online scratch cards

Web based is the most common form of online scratch cards. For the web based online cards, the website users may directly play cards without loading any software to the local computer. Games are presented in the browser plugin Macromedia Flash and require browser support for this plugin.

## Download based online scratch cards

On these websites, users must download certain software to play the online cards. After installing the software, it connects the online card service provider and handles contact without browser support.

## **Games offered**

A typical selection of games on offer at an *Online Scratch Card* might include: Fantasy slot, Bowling, Mega Safe and Slot Super 7.

## **Bonuses**

Many online Scratch card companies offer large bonuses. Often a "100% match up bonus". For example, common terms and conditions for a bonus may go as follows:

- 100% up to \$100
- Must wager 20 times the bonus before withdrawing

For a specific example, this would mean that a player depositing \$100 would start with \$200 in his/her account. He/She must make \$2000 (\$100 & times; 20) in wagers before withdrawing. Any card played will count towards the wager requirement.

## **Player Fraud**

Sometimes players are deceitful or irresponsible. In the most common cases of player fraud, the player signs up for multiple accounts on a card site using fake names to repeat the bonus more than once. Online scratch card companies do not tolerate such behavior and will usually lock the account or accounts of the player responsible, and may inform other scratch card sites or the software provider to keep the player out of other scratch card sites.

# **Confidence trick**

A *confidence trick*, *confidence game*, also known as a *con*, *scam*, *grift* or *flim flam*, is an attempt to intentionally mislead a person or persons (known as the "mark") usually with the goal of financial or other gain.

The *confidence trickster*, *con man*, *grifter*, *scam artist* or *con artist* often works with one or more accomplices called shills, who try to encourage the mark by pretending to believe the trickster. In a traditional con, the mark is encouraged to believe that they will obtain money dishonestly by cheating a third party, and is stunned to find that due to what appears to be an error in pulling off the scam they are the one who loses money; in more general use, the term con is used for any fraud in which the victim is tricked into losing money by false promises of gain.

Most confidence tricks exploit the greed and dishonesty of their victims. Often, the mark tries to out-cheat the con artist, only to discover that the mark has been manipulated into this from the start. This is such a general principle in confidence tricks that there is a saying among conmen that "you can't cheat an honest man."



However, some tricks depend on the honesty of the victim. A common scam is where, as part of an apparently legitimate transaction, the victim is sent a worthless check, which the victim then deposits. The victim is then urged to forward the value of the check to the trickster as cash, which they may do before discovering the check bounces. A fashionable scenario, (as of 2006), is where the victim is recruited as a "financial agent" to collect "business debts". Paper checks are not always involved: funds may be transferred electronically from another victim. More detail can be found at ScamSpeak.

Sometimes con men rely on naïve individuals who put their confidence in get-rich-quick schemes, such as 'too good to be true' investments. It may take years for the wider community to discover that such 'investment' schemes are bogus, and usually it is too late, as many people have lost their life savings in something they have been confident of investing in.

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## Origin of the term

Though dishonesty for financial gain had existed long before, the specific term "confidence man" was first coined in 1849 by the New York Herald to describe the deceptions of William Thompson. Thompson, dressed in genteel fashion, would approach wealthy New Yorkers and, after brief conversations, ask, "Have you confidence in me to trust me with your watch until tomorrow?" The mark, placing "confidence" in Thompson's honesty, would lend him his watch, only to have Thompson never return. Thompson's arrest was a nationwide sensation, and the term "confidence man" passed into widespread use, including the title of Herman Melville's 1857 novel *The Confidence-Man*.

## Well-known confidence tricks

- *Three Card Monte, The Three-Card Trick, Follow The Lady or Find the Lady*, which is (except for the props) essentially the same as the probably centuries-older shell game or thimblereg. The trickster shows three playing cards to the audience, one of which is a queen (the lady), then places the cards face-down, shuffles them around and invites the audience to bet on which one is the queen. At first the audience are skeptical, so the shill places a bet and the

scammer allows him to win. This is sometimes enough to entice the audience to place bets, but the trickster uses sleight of hand to ensure that they always lose, unless the con man decides to let them win to lure them into betting even more. The 'mark' loses whenever the dealer chooses to make him or her lose.

- The *Spanish Prisoner* scam, and its modern variant the Nigerian money transfer fraud, takes advantage of the victim's greed. The basic premise involves enlisting the mark to aid in retrieving some stolen money from its hiding place. The victim sometimes goes in figuring he can cheat the con artists out of their money: anyone trying this has already fallen for the essential con, by believing that the money is there to steal. Closely related is the Fake Lottery, in which the victim is told he or she has won a large lottery prize in another country, and that, in order to collect the funds, legal or other fees of several thousand dollars are required in advance. The victim pays the fees, but never sees the supposed winnings.

- The early-20th century favorite *The Big Store*, around which scam the plot of the film *The Sting* revolves. Big store scams are described in detail in David W. Maurer's *The Big Con* (see references), on which the film was loosely based. They often involved teams of dozens of con artists working together with elaborate sets and costumes.

- *The Protection Scheme* takes advantage of the fact that there are con artists out there. The con man tells the mark that there is a web site you can put your credit card number in to keep it safe from stolen identity, the mark then willingly gives the con man their credit card number. The con man is then never seen again.

- In the trust scheme, a con artist teams with another con artist or shill to lead the mark to trusting them; the con artist will convince the mark to scam people with him, but after the crime spree is over, the con artist takes the mark's share of the money and disappears.

- The *Pigeon drop*, also featured early in the film *The Sting*, wherein the 'mark' or 'pigeon' "assists" an elderly, weak or infirm stranger to keep their money safe for them. In the process, the stranger (actually a confidence trickster) "puts his money with" the pigeon's money, i.e., in an envelope, briefcase, or sack, which the pigeon is then entrusted with. The money is actually not put into the sack or envelope, but is switched for a bag full of newspaper, etc. The pigeon is enticed to "make off with" the con man's money through the greed element and various theatrics, but in actuality, the pigeon is fleeing from his own money, which the con man still has (or has handed off to an accomplice).

- *Coin collecting scam*\* is a scam that preys on unexperienced coin collectors. The con man convinces the mark that a low priced collection of jewelry is worth a greater amount. The coin collector, that is clearly unexperienced at coin collecting buys the jewelry thinking its valuable when its really not.

- The *Fiddle Game* is a variation on the Pigeon drop. A pair of con men work together, one going into an expensive restaurant in shabby clothes, eating, and claiming to have left his wallet at home, which is nearby. As collateral, the

con man leaves his only worldly possession, a fiddle (violin) that he uses to make enough money for himself to live and eat. After he leaves, the second con man swoops in, offers an outrageously large amount (e.g., \$50,000) for such a "rare" instrument, and then looks at his watch and runs off to an appointment, leaving his card for the mark to call him when the fiddle-owner returns. The mark's greed comes into play when the "poor man" comes back, having gotten the money to pay for his meal and redeem his violin. The mark, "knowing" he has an offer on the table, then buys the violin from the fiddle player (who "reluctantly" sells it eventually, for say \$5,000). The result is two con men \$2,500 richer, and a maitre d' left with a cheap instrument. (This trick is also detailed in the Neil Gaiman novel *American Gods* and is the basis for The Streets song *Can't Con an Honest John*.)

- ***The pyramid scheme.***

- In a *drug dealer scam*, the conman pretends they are selling illegal drugs and sometimes uses intimidation as part of the scam. Usually the victim hands over the money and is told to wait until the 'dealer' comes back with the product. They never do. Some fake drug pushers will give out bags full of things such as paracetamol (acetaminophen), herbs, etc.

- *Insurance fraud* — the con artist tricks the mark into damaging, for example, the con artist's car, or injuring the con artist (in a manner that the con artist can exaggerate). The con artist fraudulently collects a large sum of money from the mark's insurance policy, even though they intentionally caused the accident.

- *Pig-in-a-poke* originating in the late Middle Ages, when meat was scarce, but apparently rats and cats were not. The con entails a sale of a "suckling pig", in a "poke" (bag). The bag ostensibly contains a live healthy little pig, but actually contains a cat (not particularly prized as a source of meat, and at any rate, quite unlikely to grow to be a large hog). If one "buys a pig in a poke" (a common colloquial expression in the English language, meaning "to be a sucker"), the person has bought something of lesser value than was assumed. This confidence trick is also the origin of the expressions: "Left holding the bag" (meaning to find oneself with nothing for their efforts, as the cat is quite likely to flee when the bag is opened), and "let the cat out of the bag," meaning to reveal that which is secret, though the latter may also refer to the Cat o' nine tails.

- Many religious *cults* have been described by their critics as confidence tricks. It is alleged that their aim is to obtain money from their followers by deception. It can be unclear, however, whether they are doing it for con-artist reasons or for religious/welfare reasons. If the cult leader can be proven to use any form of deception or trickery to garner funds, then it is a con.

- *Pseudoscience* and *snake oil*. Some popular psychology confidence tricksters make money by falsely claiming to improve reading speed and comprehension using speed reading courses by fooling the consumer with inappropriate skimming and general knowledge tests. These popular psychology tricksters often employ popular assumptions about the brain and the cerebral

hemispheres that are scientifically wrong, but attractive and easy to believe. Similar scams involve the use of brain machines to alter brain waves, and intelligence amplification through balancing the mind and body.

- *Psychic surgery* is a con game in which the trickster uses sleight of hand to pretend to remove bits of malignant growths from the mark's body. A common form of medical fraud in underdeveloped countries, it imperils the victims, who may fail to seek competent medical attention. (The movie *Man on the Moon* depicts comedian Andy Kaufman undergoing psychic surgery.)

- The *Thai Gem Scam*, in which layers of conmen and helpers tell a tourist in Bangkok of an opportunity to earn money by buying duty-free jewelry and having it shipped back to the tourist's home country. The conmen guide the victim to a tuk-tuk which brings them from one destination to another until the victim is convinced and arrives at the jewelry store. This scam has been operating for 20 years in Bangkok and is alleged to be protected by Thai police and politicians.

- *Hydrophobia Lay* was a scam popular in the 1920s, in which the con man pretended to have been bitten by the mark's (possibly rabid) dog.

- *Deceptive Contest* This scam relies on the fact that it is a real contest but whose true objective is to sell the victim a low-value item at a high price. The victim sees an advertisement asking poets to submit their poems to a poetry competition. A few weeks later, a return letter announces that the victim's poem has been selected by the judges and the victim has advanced to the "semi-finals". As per the contest rules, the victim's poem will be published in a hard-cover anthology once the contest has concluded. The victim is asked to travel (at his own expense) to New York to participate in the "semi-finals" (and finals). The victim is encouraged to buy/order the book of poetry containing their poem at \$80 or even pay an extra "typesetting fee" to include a personal mini-profile also. The scam, of course, is that one in every four contestants reaches the "semi-finals" and it appeals to their vanity to buy a low-quality \$10 book for \$80. The contest is real but irrelevant to the scammers.

- *Glasses drop* is a scam in which the scammer will intentionally bump into the mark and drop a pair of glasses that have already been broken. He/she will claim that the glasses were broken by the clumsiness of the mark, and demand money to replace them.

- *Lottery Fraud by Proxy* In this particularly vicious scam, the scammer buys a lotto ticket with yesterday's winning numbers. He or she then alters the date on the ticket so that it appears to be from the day before, and therefore a winning ticket. He or she then sells the ticket to the mark, claiming it is a winning ticket, but for some reason, he or she is unable to collect the prize (not eligible, etc.). The particular cruelty in this scam is that if the mark attempts to collect the prize, the fraudulently altered ticket will be discovered and the mark held criminally liable.

- *The Darr* Acting like a man with the "shakes" or another obvious disease that creates social anxiety, the con man drops a bottle of medicine tablets, usually

tic-tacs or another medicinal look-alike near the mark. Then, hopefully, the mark helps pick up the dropped medicine, but since it was on the ground, should be dirty. The con man then goes on about how expensive medicine has become and asks the mark if he has any change. If the mark agrees, the con man then initiates a conversation about an illegal prescription drug ring. The con man continues saying that with an initial backing in the ring, much profits could be made, but without a decent amount of money, the ring will never start up. With the perception that the con man wants cheap drugs and the mark wants a large return on his investment in this operation, the mark donates the money and then the con man is never seen again. Named for acclaimed underground con man Gregory Mitchell Darr.

- *Using Art Forgeries for Scams* This con can be applied to any famous but privately owned painting. A mark's house that has an expensive original inside is set afire by the con artist, then the original is stolen and replaced with a forged one that looks burnt. The original must not have caught fire by the time the con man gets to it. The next day, the con artist comes in as an insurance man and tells the mark that the painting can be fixed but it will cost a lot. Hopefully the mark will pay the con man straight away. The con artist makes off with the original then sells it on the market for a bit more because it miraculously escaped fire.

- *Change raising* is a common short con and involves an offer to change an amount of money with someone, and at the same time taking change or bills back and forth to confuse the person as to how much money they are actually changing. The most common form, "the Short Count," has been featured prominently in several movies about gifting, notably *Nueve Reinas*. In essence, the mark makes change twice.

## Extra finesse

Many con men employ extra tricks to keep the victim from going to the police:

- **Illegal money.** A common ploy of investment scammers is to encourage the victim to use money that has been concealed from the tax authorities. The victim cannot go to the authorities without revealing that they have committed tax fraud.

- **Illegal enterprise.** Many swindles involve a minor element of crime or some other misdeed. The victim is made to think that they will gain money by helping fraudsters get huge sums out of a country (the classic Nigerian scam). The victim cannot go to the police without revealing that they planned to commit a crime themselves. Similar tricks can be played on people shopping for pirated software, illegal pornographic images, bootleg music, drugs, firearms or other forbidden or controlled goods.

- **Pitiful fraud.** The con artist may tell their mark pitiful lies about their family, children, etc therefore the mark feels sorry for them and does not alert the police

- Family member. Many con artists con on family members because the family would not want to hurt the con man by alerting the police
- Embarrassing enterprise. If the victim loses a small sum only, they may be unwilling to contact the authorities if the circumstances are embarrassing, e.g. if they would look like an idiot or if their spouse would find out that they paid lots of money to access a website of (worthless or nonexistent) pornographic material.
- Stolen Cheques. A recent twist on the Nigerian fraud scheme, the mark is told he is helping someone overseas collect "debts" from corporate clients. Large cheques stolen from businesses are mailed to the victim. These cheques are altered to reflect the victim's name, and the mark is then asked to cash them and transfer all but a percentage of the funds (his commission) to the fraudster. The cheques are often completely genuine, except that the "pay to" information has been expertly changed. This exposes the victim not only to enormous debt when the bank reclaims the money from their account, but also to criminal charges for transacting the forged cheques.

It is to be noted also that the above list is only a sampling. Confidence games are continually evolving and subject to many variations and refinements, as in the following: Con games never remain stationary. The principle may be old, but the external forms are always changing, for con men know they must adapt their schemes to the times. This is especial true of the Big Con. A good grifter is never satisfied with the form his swindle takes; he studies it constantly to improve it; as he learns more about people, he finds a way to use what he has learned.

— From The Big Con, by David Maurer (Chapter 3)

## **Famous convicted and alleged con artists**

Frank Abagnale, masqueraded as a pilot, doctor and professor  
 Howard Berg, with the same con as Kevin Trudeau (see below)  
 Lou Blonger, organized massive bunco ring in Denver in early 1900's  
 Tony & Sharon Bonicci, a.k.a. Christie & McLean, Australian confidence artists, who rip off innocent elderly people for all their savings and possessions  
 Gregory Caplinger, impersonated a doctor and scammed his patients into using his "miracle drug" ImmuStim which he claimed was a cure for cancer, AIDS, allergies, multiple sclerosis, chronic fatigue syndrome, and several other conditions.  
 Bernie Cornfeld ran what is to date the greatest scam in history, taking in just under \$2.5 billion in what was later realized to be a Ponzi scheme.  
 Tino De Angelis, who sold rights to \$175 million in soybean oil stored in tanks, which was actually a thin layer of oil floating on water.  
 Louis Enricht, U.S. chemist who claimed to have made a substitute for gasoline  
 Uri Geller, a famous but controversial alleged psychic and television personality  
 Robert Hendy-Freegard, British confidence artist who kidnapped people by telling them he was an MI5 agent and they were being hunted by terrorists, then took them on the run, conned them out of money and emotionally manipulated them; convicted in 2005[1]

Susanna Mildred Hill, U.S. woman who fooled potential suitors  
 Kaz DeMille Jacobsen, Australian fraudulent 9/11 "motivational speaker"  
 Henri Lemoine, French diamond faker  
 Peter Llewellyn who almost tricked the Russians to get a lift on the space station Mir  
 Victor Lustig, sold the Eiffel Tower  
 Gregor MacGregor, Scottish conman who tried to attract investment and settlers for a non-existent country of Poyais  
 George Parker, who sold New York monuments  
 Charles Ponzi, who ran a pyramid scheme (though he did not invent them) and became so closely identified with them that they are also known as Ponzi schemes.  
 Raymond Price, British confidence artist who cons people out of money by telling them his car has broken down and he needs a train fare home; mentioned in the book Join Me-the book  
 Lobsang Rampa, who claimed to be occupied by the spirit of a Tibetan Lama.  
 Christopher Skase  
 Soapy Smith, infamous 19th century confidence gang boss. Denver, Colorado, Skagway, Alaska  
 Billie Sol Estes, who was paid to produce millions in quotas of cotton, which never existed. LBJ was implicated by Estes in taking payoffs to ignore the scam, which took place in Texas.  
 Lolit Solis, who was responsible for the 1994 Manila Filmfest scam. Later confessed and apologized.  
 William Thompson, American criminal whose deceptions caused the term "confidence man" to be coined.  
 Kevin Trudeau, who claimed to be able to cure brain damage, increase reading speed in customers up to and beyond the rate of 10000 words per minute, and develop photographic memory.  
 Joseph Weil, a.k.a. The Yellow Kid, one of the inspirations for the Academy-award winning film The Sting.  
 Arthur Ferguson Scottish con artist\*  
 Nate Heller American con artist\*  
 Mikailo Jefferson, Singaporean con artist \*

## Quotations

- In response to the question "Who's going to believe a con artist?" Ben Matlock of Matlock responded, "Everyone, if she's good."

## References

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 Maurer, David W. (1974). The American Confidence Man. Springfield: Charles C. Thomas, Publisher. ISBN 0-3980-2974-1.

Ball, J. Bowyer; Whaley, Barton (1982). *Cheating and Deception*. New Brunswick (USA), London (UK): Transaction Publishers. ISBN 0-88738-868-X.

## Shell game

The *shell game* (also known as *Thimblerig*, *Three Shell and a Pea*, the *Old Army Game*) is portrayed as a gambling game, but is purely a swindle game used to perpetrate fraud. It is played on a flat surface, and requires three shells (or thimbles, walnut shells, bottle caps, and even match boxes) and a small soft round ball, about the size of a pea, and often referred to as such. Shell games are a very common confidence trick, referred to as a *short con*. The operators and their employees are often members of confidence gangs and can be dangerous if provoked. It is best to stay clear of this game and those running it.

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- 1 The Play
- 2 History
- 3 Current practice in Europe
- 4 Other meanings
- 5 See also

## The Play

The game can be played on almost any surface, but on the streets it is often seen played on a mat lying on the ground, or on a cardboard box. The man perpetrating the swindle (called the *operator*, or *shell man*) begins the game by placing the "pea" (often a soft little ball to facilitate its hiding in the hand) under one of the shells, then shuffles the shells around. Once done shuffling, the operator bets with his audience, on the location of the pea. If played fairly, which it never is, a player (victim) will win an equal amount bet, by correctly picking the shell containing the pea; otherwise, he/she loses the money.

Viewing a game in process from a short distance, it would appear to the uninitiated, that the game had numerous players (victims), but in reality, most of the persons standing around a game work for the operator. Operators prefer to "work" one victim at a time. The remaining "players" are collaborators, called *shills*, whose job is to pretend to play the game, and entice the victims into betting. Much of the enticement involves personal insults between the operator and the victim. Once angry, the shill will "disclose" to the victim, how the game can be won. Shills are normally rather easy to spot: they win.

The operator often moves the shells in such a manner that it is obvious to all close observers where the pea is. He then touches all three shells, as if to move them to their proper places (asking his victims, "Is the pea here, here, or here?"). This is the crucial time when the pea gets its final position: the first shell he touches is always the one that everybody knows



the pea to be under; he deftly removes the pea out from under the shell (known as *the steal*) and repositions it under another shell. This action is difficult to detect. Even knowing how to perform the trick will not help a viewer know where the pea is for certain.

When the operator has finished moving the shells around, he asks the player (victim) if they wish to bet on the play. If a player agrees, they have to place their money down, before they can point to a shell. They invariably choose the wrong "obvious" shell, and lose their money. The operator begins to insult his victim about their stupidity, which entices more "revenge" play, sometimes losing many times in a row.

If no victim wants to play, one of the shills may start the play in order to animate the victim. The shill will either lift a shell which is "obviously" wrong and will lose his money, or he lifts the "obvious" shell and wins. He wins because the operator touched all three shells again, moving the pea back to the "obvious" shell.

There are many variants of this scheme: sometimes the operator will not move the pea away from its "obvious" position by touching the three shells until a victim has handed over the money.

Occasionally, the first game will be played fairly for a lower amount, to entice the tourist to risk more money. Cheating will start with the following games. Sometimes repeat losers are kept in the game with an occasional win.

Sometimes a shill will place a finger on the "obvious" shell, as if to help the playing tourist and prevent any irregularities. However, the operator will still touch the three shells, the shill lifts the finger shortly at exactly the right time and the pea again wanders to another shell invisibly. Or, as explained above, the adjustment takes place after the money has been handed over.

It is impossible for a victim to win, even if they know the trick and know where the pea is at all times. Players suspected of understanding the trick, or not betting, will be quickly edged away from the table by the accessories.

The game should never be mistaken for an honest game, and players should never fool themselves into thinking they can win. The operators of this game are skilled and no one can win, unless the operator wants them to. Even "accidentally" picking the right shell that holds the pea will not win the game. Operators are masters of sleight-of-hand, and can easily hide the pea while lifting a shell.

## History

The shell game has been played at least since the Middle Ages, as evidenced by several paintings of that time. A book published in England in 1670 (Hull Elections - Richard Perry and his fiddler wife) mentions the thimblorig game. In the 1790s. It was called "*thimblorig*" as it was originally played using sewing thimbles. Later, walnut shells were used, and today the use of bottle caps is very common. It was believed to be introduced to the U.S. by a Dr. Bennett, who became famous for his skill at the game. The swindle became very popular through-out the nineteenth century, and games were often set up in or around traveling fairs. Fear of jail kept these shell men traveling from one town to the next, never staying in one place very long. One of the most infamous confidence men of the nineteenth century, Jefferson Randolph Smith, known as Soapy Smith, led organized gangs of shell men through-out the mid-western States, and later in Alaska. Amazingly, today, the shell game swindle is still performed on the unwary in larger cities.

## Current practice in Europe

Today, the game is still being played for money in many major European cities, usually at locations with a high tourist concentration (for example: Rambla in Barcelona, Gran Via in Madrid, Kurfürstendamm in Berlin, Bahnhofsviertel in Frankfurt am Main) and in Eastern Europe. The game is classified as illegal gambling in most countries and the operators are able to remove all traces of the game in seconds when authorities approach.

## Other meanings

Today, the term shell game is used more generally to describe a situation in which conspicuous actions are taken to cover up deception. For example, the methods used by unscrupulous business firms in their accounting scandals were described as "a shell game."

"Shell Game" is also the title of a science fiction short story by Philip K. Dick, and a film in pre-production stages, directed by Freddie Wong.

"Shell Game" is the name of a pricing game on the daytime game show The Price Is Right.

"The Shell Game" (Chinese: 千王, lit. The King of Kings) was the 1980 TVB series about characters who use "shell game" techniques, starring Simon Yam, Liza Wang, and Patrick Tse. Its sequels are "The Shell Game II" (1981) (千王群英会, lit. The Kings' Heroic Gatherings), starring Liza Wang, Patrick Tse, and Chow Yun Fat, and 1996 ATV "King of Gambler" (千王之王) starring Patrick Tse. Unlike most trilogies, it follows a few or less lives of characters in each series.

## See also

- Three card monte

**Categories:** Confidence tricks

# Three card monte

*Three-card Monte*, also known as the *Three-Card Trick*, *Follow the Lady* or *Find the Lady*, is a confidence game in which the victim, or mark, is tricked into betting a sum of money that he can find the money card, for example the Queen of Spades, among three face-down playing cards. In its full form, the three-card Monte is an example of a classic short con in which the outside man pretends to conspire with the mark to cheat the inside man, while in fact conspiring with the inside man to cheat the mark.

## Contents

- 1 Rules
- 2 Drawing a player in
- 3 How it's really done
  - 3.1 The throw
  - 3.2 The Mexican turnover
- 4 Historic
- 5 See also
- 7 Reference

## Rules

The three-card Monte game itself is very simple. To play, a dealer places three cards face down on a table. (The table is often nothing more than a cardboard box, providing the ability to set up and disappear quickly.) The dealer shows that one of the cards is the Queen of Spades, and then rearranges the cards quickly to confuse the player about which card is which. The player is then given an opportunity to select one of the three cards. If the player correctly identifies the Queen of Spades, he wins an amount equal to the stake he bets; otherwise, he loses his stake.

## Drawing a player in

When the mark arrives at the three-card Monte game, he is likely to see a number of other players winning and losing money at the game. These are shills, confederates of the dealer who pretend to play so as to give the illusion of a straight gambling game. The mark is likely

to notice that he can follow the Queen more easily than the shills seem to be able to, which sets him up to believe that he can beat the game.

In reality, the mark does just fine at following the card he's watching—but it's not the Queen.

## **How it's really done**

Dealers employ sleight of hand and misdirection to prevent the mark from finding the Queen. Several moves are in common use.

### **The throw**

In the throw, the dealer holds the cards lengthwise by their top and bottom edges, with the face of each card oriented away from the hand that is holding it. One card is held in his left hand, a second is held in his right hand between the thumb and the middle finger, and a third above it between thumb and forefinger (index finger). Both hands are tilted up to reveal their identities to the mark and shill(s) standing opposite the dealer, clearly showing that one of the two cards held in the right hand is the Queen of Spades. All three cards are then simultaneously dropped onto the table and placed side-by-side in one smooth motion. As they are dropped, the dealer moves his right hand sideways to separate the two cards. However, at this stage the sleight occurs—while the mark thinks the lower card has fallen first, the top card has in fact been pushed out slightly early, swapping the positions of these two cards.

Done properly, the throw is virtually undetectable; even shills can't reliably follow cards through the throw. Three card monte crews use secret signals so that the dealer can tell the shills where the Queen is.

The throw accounts for the characteristic sideways motion of the dealer's hands as he moves the cards around on the table.

### **The Mexican turnover**

If a mark should happen to pick the Queen when the dealer doesn't want him to, the dealer can use a Mexican turnover to exchange it with another card. First, the dealer picks up another card—not the one that the mark has chosen. He holds it by a corner between his thumb and forefinger, and slides it under the chosen card—ostensibly in order to turn over the chosen card. In fact, as the two cards come vertical, he shifts his grip from the unchosen card to the chosen card, taking the chosen card away in his hand and leaving the unchosen card to fall face up on the table. Like the throw, a properly executed Mexican turnover is virtually undetectable. But it must be added that the operators on the street (besides those in Mexico City) do not use the Mexican turnover. Different variants of "Monte" tricks were described by Mexican author José Joaquín Fernández de Lizardi. His book *Periquillo*

Sarniento was written in 1816. (Published in English as The Itching Parrot (Doubleday, 1942)

## Historic

- It was taking a victim with three-card Monte, on July 7, 1898, that caused the shooting death, two days later, of infamous con man Soapy Smith.

## See also

- Shell game
- 

## Reference

- Notes on Three-Card Monte by Whit Haydn

**Categories:** Confidence tricks

## Mobile gambling

*Mobile gambling* refers to gambling done on a remote wirelessly connected device. These devices can include wireless tablet PC's, mobile phones and other non traditional mid-level networked comuting devices. Some online casinos and online poker cardrooms offer mobile options.

Mobile gambling requires a data connection to operate and in most cases this data layer is provided by the telecom provider for the region or country. GPRS, GSM Data, UMTS, I-MODE are all data layer technologies upon which mobile gambling depends.

While still relatively underdeveloped, analysts place the value of the market space at US\$20 billion by 2010. Jupiter, Gartner and Seymour Pierce all project rapid growth in the sector through to 2010.

## Sources

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# Online gambling

*Online gambling* is a general term for gambling using the Internet. This article provides a brief introduction to some of the forms of online gambling, as well as discussing general issues.

## Contents

- 1 Online poker
- 2 Online casinos
- 3 Online sports betting
- 4 Online bingo
- 5 Mobile gambling
- 6 Funds transfers
- 7 General legal issues
- 8 Problem gambling

## Online poker

*Main article: online poker*

Online poker rooms commonly offer Texas hold 'em, Omaha, Seven-card stud, and other game types in both tournament and ring game structures. Players play against each other rather than the "house", with the card room making its money through the "rake".

## Online casinos

*Main article: online casino*

There are a large number of online casinos, in which people can play casino games such as Roulette, Blackjack, Craps, and many others. These games are played against the "house", which makes money due to the fact that the odds are slightly in its favour.

## Online sports betting

*Main article: sports betting*

Bookmakers and betting exchanges offer fixed-odds gambling over the Internet on the results of sporting events.

## Online bingo

*Main article: online bingo*

There are a number of online bingo rooms offering games on the Internet.

## Mobile gambling

**Main article:** mobile gambling

Developments in the use of wireless, mobile devices to gamble follow in the wake of mainstream online gambling.

## Funds transfers

Typically, gamblers upload funds to the online gambling company, make bets or play the games that it offers, and then cash out any winnings. European gamblers can often fund gambling accounts by credit card or debit card, and cash out winnings directly back to the card. However, US credit cards frequently fail to be accepted. A number of electronic money services, including Firepay, Neteller, and Moneybookers, offer accounts with which (among other things) online gambling can be funded.

Payment by cheque and wire transfer is also common.

## General legal issues

Online gambling is legal and regulated in many countries including most members of the European Union and several nations in and around the Caribbean Sea.

The United States Federal Appeals Courts has ruled that the Federal Wire Act prohibits electronic transmission of information for sports betting across state lines. There is no law prohibiting gambling of any other kind [1].

Some states have specific laws against online gambling of any kind. Also, owning an online gaming operation without proper licensing would be illegal, and no states are currently granting online gaming licenses.

The government of the island nation of Antigua and Barbuda, which licenses Internet gambling entities, made a complaint to the World Trade Organization about the U.S. government's actions to impede online gaming. The Caribbean country won the preliminary ruling but WTO's appeals body has partially reversed that favorable ruling in April, 2005. The appeals decision effectively allowed state laws prohibiting gambling in Louisiana, Massachusetts, South Dakota and Utah. However, the appeals panel also ruled that the United States may be violating global trade rules because its laws regulating horse-racing bets were not applied equitably to foreign and domestic online betting companies. The panel also held that certain online gambling restrictions imposed under US federal laws were inconsistent with the trade body's GATS services agreement.[2]

In March 2003, Deputy Assistant Attorney General John G. Malcolm testified before the Senate Banking Committee regarding the special problems presented by online gambling [3]. A major concern of the United States Department of Justice is online money laundering. The anonymous nature of the Internet and the use of encryption make it especially difficult to trace online money laundering transactions.

In April 2004 Google and Yahoo!, the internet's two largest search engines, announced that they were removing online gambling advertising from their sites. The move followed a United States Department of Justice announcement that, in what some say is a contradiction of the Appeals Court ruling, the Wire Act relating to telephone betting applies to all forms of Internet gambling, and that any advertising of such gambling "may" be deemed as aiding and abetting. Critics of the Justice Department's move say that it has no legal basis for pressuring companies to remove advertisements and that the advertisements are protected by the First Amendment. As of April 2005, Yahoo! has provided advertising for "play money" online gaming.

In February 2005 the North Dakota House of Representatives passed a bill to legalize and regulate online poker and online poker cardroom operators in the State. Testifying before the State Senate, the CEO of one online cardroom, Paradise Poker, pledged to relocate to the state if the bill became law. However, the measure was defeated by the State Senate in March 2005. Jim Kasper, the Representative who sponsored the bill, plans a 2006 ballot initiative on the topic.

## **Problem gambling**

### **Main article:** problem gambling

In the United States, the link between availability and problem gambling was investigated in 1999 by the National Gambling Impact Study, which found that "the presence of a gambling facility within 50 miles roughly doubles the prevalence of problem and pathological gamblers". If this finding is correct, it is reasonable to expect that easy access to gambling online would also increase problem gambling. That same report noted the possibility that "the high-speed instant gratification of Internet games and the high level of privacy they offer may exacerbate problem and pathological gambling".

## **Gambling regulation**

*Gaming law* can be described as the set of rules and regulations that apply to the gaming or gambling industry. Gaming law is not exactly a branch of law in the traditional sense but rather a transversal gathering of a range of legal topics related to gaming which encompasses matters normally included in various branches of law, including constitutional law, administrative law, tax law, company law, contract law and criminal law.

Categories: Gambling



# Bingo

Bingo (US) | Bingo (card game) | Bingo card | Buzzword bingo | Housie | Keno | Online bingo

## Bingo (US)

*Bingo* is a game of chance where randomly-selected numbers are drawn and players match those numbers to those appearing on 5x5 matrices which are printed or electronically represented and are known as "cards." The first person to have a card where the drawn numbers form a specified pattern is the winner and calls out "Bingo!" to alert others to the win. Bingo is a game used for legalized gambling in some countries.

A very similar game called housie is played in New Zealand, Australia, and the UK (where it is called Bingo). This game differs only in ticket layout and calling.

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- 1 Description of the game
- 2 Bingo Cards
- 3 Culture
- 4 History
- 5 The business of bingo
- 6 Alternate variations

## Description of the game

Each bingo player is given a card marked with a grid containing a unique combination of numbers and, in some countries, blank spaces. The winning pattern to be formed on the card is announced. On each turn, a non-player known as the caller randomly selects a numbered ball from a container and announces the number to all the players. The ball is then set aside so that it cannot be chosen again. Each player searches his card for the called number, and if he finds it, marks it. The element of skill in the game is the ability to search one's card for the called number in the short time before the next number is called.

The caller continues to select and announce numbers until the first player forms the agreed pattern (one line, two lines, full house) on their card and shouts out the name of the pattern or bingo. One of the most common patterns, called full card, blackout and cover-all simply consists of marking all the numbers on the card. Other common Canadian and American patterns are single line, two lines, centre cross, L, Y, inner square ( $4 \times 4$ ), roving square ( $3 \times 3$ ), and roving kite (a  $3 \times 3$  diamond). On Canadian and American cards lines can

be made horizontally, vertically, or diagonally. Inner and roving squares and kites must be completely filled; roving squares and kites may be made anywhere on the card.

## **Bingo Cards**

Canadian and American bingo cards are  $5 \times 5$  grids of numbers only; dual daub, dual dab, or "double-action" cards have two numbers in each square. Each space in the grid contains a number, except for the centre square, which is considered filled. The highest number used is 75. The columns are headed with the letters of the word BINGO, and the letter is called with the number — for example, B-10, I-25, N-40, G-55, O-70. Numbers 1 to 15 are assigned to the B column, 16 to 30 to the I column, 31 to 45 to the N column, 46 to 60 to the G column, and 61 to 75 to the O column.

Each card has a unique serial number to permit quick verification by computer.

## **Culture**

Canadian and American games often have multiple bingos — for example, the players may first play for a single line, then after that is called continue playing for a full card, then for a consolation full card.

In Canadian and American Halls, players often play multiple cards for each game; thirty is not an unusual number. Because of the large numbers of cards played by each player, most Canadian and American halls have the players sit at tables to which they often fasten their cards with adhesive tape. To mark cards faster the players usually use special markers called dabbers. At commercial halls, after calling the number the caller then displays the next number on a television monitor; bingo cannot be called until that number is called aloud, however. The numbers already called and the patterns being played are also displayed on electric signs.

In American primary schools, bingo is used to teach students. The numbers are replaced with letters, pictures, words or symbols that represent important concepts.

## **History**

Bingo can be traced back to a game called Lotto, played in Italy in 1530. The bingo name comes from a corruption of the name Beano, the name of a form of bingo played in the United States in the 1920s. Beano was so called because beans were used to cover the numbers. The name of the game was changed to "Bingo" when an excited player called out "bingo" instead of "beano." The name stuck.

## **The business of bingo**

In the US, the game is primarily staged by churches or charity organizations. Their legality and stakes vary by state regulation. In some states, bingo halls are rented out to sponsoring organizations, and such halls often run games almost every day. Church-run games, however, are normally weekly affairs held on the church premises. These games are usually played for modest stakes, although the final game of a session is frequently a coverall game that offers a larger jackpot prize for winning within a certain quantity of numbers called; a progressive jackpot may increase per session until it is won.

Commercial bingo games in the US are primarily offered by casinos (and then only in the state of Nevada), and by Native American bingo halls. In Nevada, bingo is usually offered only by casinos that cater to local gamblers, and not the famous tourist resorts. They will usually offer several two-hour sessions daily, with relatively modest stakes except for coverall jackpots. Station Casinos, a chain of locals-oriented casinos in Las Vegas, offers a special game each session that ties all of its properties together with a large progressive jackpot. Native American games are typically offered for only one or two sessions a day, and are often played for higher stakes than charity games in order to draw players from distant places. Some also offer a special progressive jackpot game that may tie together players from multiple bingo halls.

As well as bingo played "in house", the larger commercial operators play some games linked by telephone across several, perhaps dozens, of their clubs. This increases the prize money, but greatly reduces the chance of winning due to the much greater number of players.

There are examples where Bingo halls are linked together in a network to provide alternative winning structures and higher prizes. Loto Quebec in Canada have connected bingo halls in such a manner.

Bingo is also the basis for online games sold through licensed lotteries. Tickets are sold like for Lotto and the player get a receipt with his/her numbers, like a bingo card. The daily or weekly draw is normally broadcast on TV. These games offers higher prizes and it is typically more difficult to win. Examples are the game Extra provided by Norsk Tipping in Norway and Boxen provided by Dansk Tilstjeneste in Denmark.

The Bingo logic is frequently used on scratch card games. The numbers are pre-drawn for each card and hidden until the card is scratched. In lotteries with online networks the price is electronically confirmed to avoid fraud based on physical fixing.

## **Alternate variations**

Two notable modern variations of bingo have achieved some kind of status in American culture:

- Buzzword bingo (also called bullshit bingo)
- Bovine bingo
- Online bingo

Categories: Bingo

## Bingo (card game)

*Bingo* is a gambling card game named by analogy to the game bingo. Each player is dealt X cards and Y cards are dealt face down in common. The value of each hand is the sum of the values of each card, where the cards have blackjack values. The cards on the board are gradually revealed with opportunities to bet along the way. Bingo is usually played high-low with the pot being split between the players with the highest and lowest point totals. The exception would be if one player loses all his cards he takes the entire pot.

One example of play is "Sixty Six Bingo". Each player gets six cards and there are six common cards. In this case there would be rounds of betting before any common cards are turned over, after the first two cards are turned over, after the third and fourth cards are turned over and after the fifth and sixth cards are turned over.

While similar to the game bingo, the card game should not be confused with bingo cards, which are used to play bingo or housie.

Categories: Bingo

## Bingo card

Bingo cards are used to play various bingo games, including U.S. style bingo and U.K. style Housie. Cards are usually made of cardboard or non-reusable paper, but more and more bingo halls are beginning to use computerized cards. Bingo cards are printed in various styles (see below) with randomized bingo numbers. As bingo numbers are called, players either check off the boxes with a pen or marker, or use a bingo daber/dauber to stamp the box.

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- 1 U.S. Bingo Cards
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- 3 Other Types of Cards
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## U.S. Bingo Cards

U.S. bingo cards are 5x5 squares, with the columns labeled B-I-N-G-O and with spots contains numbers between 1 and 75. The center square typically is a free spot, and often has the word "free" printed on it.

B I N G O  
1223445674  
8 17375269

1118X 4664  
5 22335971  
2 26425163

- Column B contains numbers 1 - 15
- Column I contains numbers 16 - 30
- Column N contains numbers 31 - 45
- Column G contains numbers 46 - 60
- Column O contains numbers 61 - 75

## U.K. Bingo Cards

U.K. Bingo, or Housie, cards are usually called tickets and differ greatly from U.S. Bingo cards. The cards contain three rows and nine columns. Each row contains five numbers and four blank spaces. Each column contains one, two or three numbers.

- Column 1 contains numbers 1 - 10
- Column 2 contains numbers 11 - 20
- Column 3 contains numbers 21 - 30
- Column 4 contains numbers 31 - 40
- Column 5 contains numbers 41 - 50
- Column 6 contains numbers 51 - 60
- Column 7 contains numbers 61 - 70
- Column 8 contains numbers 71 - 80
- Column 9 contains numbers 81 - 90

## Other Types of Cards

- Flimsies

## See also

- Bingo Card Game
- Keno

Categories: Bingo

## Flimsies

*Flimsies* are a type of bingo cards printed on thin sheets of paper. They are typically printed with three cards on a single sheet, but also come in other formats:

- One card per sheet
- Two cards per sheet
- Four cards per sheet
- Six cards per sheet
- Nine cards per sheet

Flimsies costs \$1-\$2 per sheet and a win on a flimsy on a "special" game usually pays quite a bit more than a win on a "regular" game.

Also known as flimsy sheets or throwaways.

## See also

- Bingo
- Housie
- Bingo card

Categories: Bingo

## Buzzword bingo

*Buzzword bingo* is a game sometimes played in relaxed team meetings. The rules resemble those of bingo and housie, but instead of a matrix of numbers, each player's card is a matrix of buzzwords. When a player hears one of his buzzwords spoken in the meeting, he crosses it off his card. The winner is the player who crosses a full line first and exclaims, "Bingo!"

One documented buzzword bingo occurred when Al Gore, the then Vice President of the United States known for his liberal use of buzzwords hyping technology, spoke at MIT's 1996 graduation. The graduation class had distributed bingo cards containing buzzwords to the audience.

A similar game is *bullshit bingo*, which is normally played for satirical or ironic purposes.

Categories: Bingo

## Housie

*Housie* is a gambling game played in New Zealand, Australia and the UK, where it is called Bingo. Players mark off numbers on a ticket as they are randomly called out, in order to achieve a winning combination.

It is not to be confused with the similar American game Bingo, as the tickets and the calling are slightly different.

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- 1 Description of the Game
- 2 Business Aspect
- 3 Calling nicknames (UK Bingo)
  - 3.1 Sources
- 4 Usage of Bingo nicknames in the UK
- 5 Trivia

## Description of the Game

A typical housie/bingo ticket is shown to the right. It contains fifteen numbers, arranged in nine columns by three rows. Each row contains five numbers and four blank spaces. Each column contains either one, two, or very rarely three, numbers:

- The first column contains numbers from 1 to 9,
- The second column numbers from 10 to 19,
- The third 20 to 29 and so on up until the last column, which contains numbers from 80 to 90 (the 90 being placed in this column as well).

The game is presided over by a caller, whose job it is to call out the numbers and validate winning tickets. He will announce the prize or prizes for each game before starting. The caller will then usually say "Eyes down" to indicate that he is about to start. He then begins to call numbers as they are randomly selected, either by an electronic Random Number Generator (RNG), by drawing counters from a bag or by using balls in a mechanical draw machine. Calling takes the format of simple repetition in the framework, "Both the fives, fifty five", or "Two and three, twenty three."

The different winning combinations are:

- Line — covering a horizontal line of five numbers on the ticket.
- Two Lines — Covering any two lines on the same ticket.
- Full House — covering all fifteen numbers on the ticket.
  - In New Zealand in bonus (Super Housie) games, often three lines may be claimed - top, middle and bottom, usually with much larger prizes, are also played at various times throughout the session.
  - In the UK, however, it is most common for a line game to be followed directly by a two line game and a full house game, or just by a full house game.
  - In the UK's National Bingo Game only a full house game is ever played.
  - In all cases, the last number called must be in the winning sequence.

When players first come to the venue (often a church hall, rugby club or other place with sufficient tables and chairs, including in the UK many specifically designed bingo clubs) they can buy a book of tickets. Players generally play between one and six books. In New Zealand a book usually contains fifty tickets which are played over the course of the night. In UK bingo

clubs, playing is divided into sessions with different books, each with a designated number of pages. Players in the UK usually prefer to buy books of 6 tickets containing all possible numbers in different combinations.

As each number is called, players check to see if that number appears on their tickets. If it does, they will mark it with a special marker called a "dabber" or a "dauber", shown here. When all the numbers required to win a prize have been marked off, the player calls out "Line" or "House" depending on the prize, and an official or member of staff will come and check the claim:

- In the UK with the increasing computerization of bingo systems, an Auto-Validate system is often used in large clubs where a 1 to 8 digit security code is read out by a member of staff and checked against the entry for that ticket on the system. This saves the club from the time-consuming exercise of reading out every number on the ticket.

- In smaller clubs, however, each number in the winning combination must be read out. The caller will check to see if each number has been called, and if it has, he will say something similar to "House correct - please pay out".

There will often be an interval halfway through the game. In Australia and New Zealand Super Housie tickets are played and raffles (if there are any) are drawn. In UK bingo halls it is most common for Mechanised Cash Bingo to be played (see below).

## **Business Aspect**

In New Zealand and Australia, housie is often used a fundraiser by churches, sports teams, and other groups, and raffles are sold before the game.

Bingo, as housie is known as in the UK (not to be confused with the similar US game Bingo), is an expanding and highly profitable business, with many companies competing for the customers' money.

The two largest companies with bingo halls in the UK are:

- Gala Bingo (Gala Group Ltd.)
- Mecca Bingo Ltd. (part of The Rank Group plc)

As well as offering the familiar Housie/Bingo played by marking numbered books, most large clubs have their tables modified for the playing of Cash Housie or Mechanised Cash Bingo (using coin slots or, increasingly in the 21st century, an electronic credit system). This is highly profitable for the operator, with a typical "take" of fifty percent of the stake.

## **Calling nicknames (UK Bingo)**

In New Zealand, calling nicknames are not used as much as in the UK, but here are some of the more common ones. When calling, the caller will usually say both digits on their own first, and then the number itself, for example, "Three and two, thirty-two". Some callers will use many of these slang terms, others just a few. However, "Kelly's Eye", "Legs Eleven" and "Top of the Shop" are often used, even if none of the others are. See section below for usage.



Number	Slang Expression
1	Kelly's Eye / On its Own / At the Beginning / Start the Game
2	One Little Duck
3	Cup of Tea / One Little Flea / My little Fly
4	Knock at the Door
5	Man Alive
7	Lucky for Some
8	One Fat Lady / The Garden Gate
9	Doctor's Orders
10	Tony's Den (forename of current prime minister)
11	Chicken Legs / Legs Eleven
13	Unlucky for Some / Lucky for Some
16	Sweet Sixteen
21	Key of the Door
22	Two Little Ducks
23	Thee and Me
24	Two Dozen
30	Dirty Gertie
37	More Than Eleven
44	Droopy Drawers / All the fours
45	Halfway There
50	Bulls eye / Blind 50
51	Tweak of the Thumb
55	Snakes Alive / All the Fives
57	Heinz Varieties
59	Brighton Line
64	Red Raw
66	Clickety-Click
71	Bang on the Drum
76	7 and 6 - Was she worth it? / Trombones
79	One More Time
81	Stop and Run
86	Between the Sticks
88	Two Fat Ladies
90	Top of the Shop / Top of the House

There is at least one nickname for each bingo number called. See sources for more.

## Usage of Bingo nicknames in the UK

Since the introduction of the electronic Random Number Generator (RNG) in Bingo Halls in the UK, the usage of the nicknames above in mainstream Bingo has dramatically decreased. Bingo with an electronic RNG is much less time consuming and it has been discovered that replacing the nicknames with a simple repetition (in the pattern "All the

fives, fifty five" or "Two and four, twenty four"), has allowed bingo halls to focus on the more lucrative business of Mechanised Cash Bingo (MCB), known in Gala Bingo Clubs as Party Bingo, and Mecca Bingo Clubs as Cashline.

It is perhaps nostalgic to note that the usage of these nicknames tends to be greater where the focus of playing bingo is upon fun rather than big business; this includes British holiday resort chains such as Haven, British Holidays and Pontins, and also church halls, social clubs etc.

## Trivia

- An average British game of bingo takes between four and four and a half minutes.
- The average speed of a British bingo caller is 23 numbers per minute.
- The average time to check a winning claim is 30 seconds.
- There is a UK Caller of the Year Competition in which bingo callers compete for a cash prize and the chance to call the numbers in Las Vegas, as well as to become the bingo 'ambassador' for Britain.
- The bingo industry employs over 20,000 people from callers, and change givers to cleaners and accountants.
- There are 699 licensed and operating bingo clubs in Great Britain.
- For the year 2000 the total estimated market was around 89 million admissions.
- Over 3 million people regularly play bingo in licensed clubs.
- Players are often members of more than one club.
- Players often arrive 2 hours before the game starts, to enjoy a meal or chat with friends.
- More than two in three people go to bingo for social, rather than financial reasons.
- Many celebrities like to play bingo, including Denise van Outen, Elle MacPherson, Damon Hill, Mariah Carey, Bianca and Jade Jagger.
- In 2004 more people attended bingo than football matches in both UK leagues.
- The current Bingo Caller of The Year is Karl Seth, aged 33, from the Buckingham Bingo Club in Old Trafford, Manchester.
- All bingo halls in the UK participating in the National Bingo Game must adhere to the somewhat more strict rules on calling numbers because of the overwhelmingly large prize money (sometimes up to GBP £500 thousand). This includes a double repetition of every single number, in the format, "Fifty five, both the fives, fifty five"

Categories: Bingo

## Keno

*Keno* is a bingo-like gambling game. Its history can be traced to a Chinese game called "The Game of the White Dove (白鴿)" invented during the Han Dynasty (187 BC). The name "keno" descends from a form of bingo or Lotto popular in the USA in the 19th century. There are many references to "Keno" played in a bingo like format in the eastern states prior to the influx of Chinese during the gold rush. The name appears to have been transferred to the similar format Chinese lottery in the late 1800s.

## History

The following account of the history of the game is an excerpt from Stewart Culin's paper published in 1891. [1]

This game is an old establishment, and was first introduced by Chéung léung of the great Han Dynasty. When the city was hard pressed, and provisions were beginning to fail, they (the besieged) were anxious to increase the contributions, and to exhort the people to subscribe more for the army, but were unable to do so. Hence they established a game of chance (to guess characters), by which they hoped to tempt the people to hazard their property. In order to fix a method of losing or gaining at hazard, they chose 120 characters for the whole game and eight characters for one subdivision. If the people lost one (whole) subdivision they lost three lí of property; if they gained one division they were rewarded with ten taels. These regulations being once established, who would not sacrifice a little in order to gain much? The two games in the morning and evening were attended by men and women who tried their luck by guessing. They had only opened the game for about ten days, when they had accumulated more than 1000 pieces of silver; and after a few more decades their wealth was boundless. The money thus gained was considered a contribution to the army for the reduction of the empire....

At present the people practice the game as a profession. They borrow the characters from the Thousand Character Classic, of which eighty are chosen and arranged after a new plan, ten characters forming one division, which the people are permitted to purchase for more or less (for whatever they please.)

Three cash gaining ten taels makes the people covet the game without loathing. When they guess five characters they gain five lí; when six characters they gain five candareens; when seven characters they gain five mace; when eight characters they gain two taels and five mace; when nine characters they gain five taels; when ten characters they gain ten taels.

When this game was first established, the houses were often at a great distance, and communication being difficult and the people anxious soon to know the result respecting their gaining or losing, they employed letter doves to carry the news to the parties, whence the present designation: 'The Game of the White Dove.'

## Modern keno

Keno, in its modern form, is like a lottery or bingo in that it is a numbers game. Unlike bingo, the keno player picks the numbers for his or her ticket(s). Keno cards have 80 numbers; the keno player can pick as many (or as few) numbers as desired. This is done by circling or otherwise marking them with a pencil. Once the player has picked his or her numbers, he must bring his or her card back to the clerk at the keno booth. The clerk will then issue a receipt after recording the player's numbers.

After picking numbers and recording them at the keno booth, the player will then watch either a "big board" in which winning keno numbers will light up or on a video monitor showing the selected numbers. As the winning numbers light up, the player usually marks them on his or her card with a bright-colored marker. The amount of numbers the player originally picked that match winning numbers of a particular drawing will determine if any money is won and, if so, how much. The winning ticket needs to be taken to the keno booth immediately if it is an individual game ticket, as drawings usually take place every five minutes. If the player tries to redeem a winning ticket when the next drawing starts, it is void and no money is paid out.

To avoid having a void ticket, a keno player can purchase a "multi-race" ticket with the same picked numbers on anywhere from 2 to 20 tickets. When the maximum number of games (matching the number of tickets) is finished, the player can then redeem any winnings and avoid the peril of a void ticket. Another option is the "stray and play" ticket, which is usually a number of games greater than 30. Unlike standard keno tickets, the "stray and play" doesn't have to be redeemed immediately and is often good for up to a year after purchase.

Lottery versions of Keno are now used in many National Lotteries or state licensed Lotteries around the world. The games have different formulas depending on the wanted price structure and whether the game is slow (daily or weekly), or if it is a fast game with just minutes between the draws. The drawn numbers are typically published on TV for the slow games and on monitors at the point of sale for the fast games.

Categories: Bingo

## Online bingo

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- **5 90 Ball versus 75 Ball**
- 6 Bingo networks
- 7 Online bingo in the UK
- 8 Software providers

*Online bingo* is the game of bingo (US|UK) played on the Internet. Online bingo is a multi billion dollar business.

Unlike balls used in regular bingo halls, online bingo sites use a random number generator. Online bingo halls usually offer online casino games as well as the bingo, but the actual bingo play works almost exactly like playing online poker or online casino games, with everything being virtual. One notable feature of online bingo is the chat functionality. Successful online bingo sites foster a sense of community and interaction between players.

## **Getting started**

Some operators require players to download free software to play their games. Other operators use Java or Flash based games that allow you to play immediately online after registering a player account.

## **Depositing**

Free games are available, but before playing for real money players are required to fund an account. Most sites accept a standard range of e-wallet funding options, such as Neteller, Firepay, Citadel and PrePaidATM.

Sites often provide a number of incentives to deposit, including matching bonuses where the site will reward depositing players by matching a percentage of their deposit.

## **How to play**

Bingo is one of the easiest games to play and the online version is no different. Playing bingo online, players can make use of optional features which make playing the game easier, such as auto-daub. Auto-daub automatically marks off the numbers on cards as they are called, so players don't have to. Most software providers support other gaming features as "Best Card Sorting" and "Best Card Highlighting" where players cards are sorted and highlighted by closest to bingo. Some of these features are designed to free players to enjoy the communal pleasantries of the chat features.

## **Chat & the CM**

The Chat applet brings a different dimension to gaming. This is where all the players of a game can meet and chat during games of bingo. Whereas in land-based bingo where talking is strictly forbidden during a game, it is actively encouraged in online bingo. Chat functions as an effective retention tool, aimed especially at the predominantly female audience.

CM stands for "chat monitor". The CM works for the bingo site as the host of a chat room and plays a role in welcoming players and creating a friendly and communal atmosphere in

the room. This includes, but is not limited to, congratulating players when they win a game as well as playing chat games in-between bingo. Most sites have a chat protocol known as chat etiquette or chatiquette.

## **90 Ball versus 75 Ball**

There are two types of bingo played around the world. North America plays 75-ball bingo on a 5x5 card with the centre square usually marked 'free'. In the UK, parts of Europe, Australia and parts of South America they play a 90-ball game, marked on a 9x3 card. Both types of bingo are prominent online.

The desired pattern which players aim to achieve in 75 ball can vary dramatically, from a simple single line to more complicated themed patterns. The aim of the game, however, is always the same: to mark off the numbers to achieve the desired pattern. Speed Bingo is a variation played exactly the same, but numbers are simply called much quicker.

In 90-ball bingo, each card has three horizontal lines and nine columns. Each line contains five numbers, meaning each card has 15 numbers. The first column contains numbers from 1 -10, the second column contains numbers from 11-20, all the way through to the final column which contains numbers from 81-90.

A game of 90 ball bingo will normally be played in three stages: one line, two lines and Full House. In a "one line" game players need to mark a complete horizontal line across one card (i.e. 5 numbers marked). The aim of a 'two lines' game is to complete any two marked lines horizontally across one card (i.e. 10 numbers marked). Finally a "Full House" means all the numbers marked off on one card (all 15 numbers), as in a regular coverall game. The prize split differs for each stage of the game. The Full House is always the largest prize in any one game.

## **Bingo networks**

There are a number of sites that will have the same promotions, similar graphics, the same bingo rooms and the same CMs. This occurs because they are part of a bingo "network". In very simple terms, this means a number of different sites (or "front ends") are playing with the same numbers for the same jackpot. Multiple sites act as doorways to a single game, leading to larger pools of players in chat and sizeable pots to win.

## **Online bingo in the UK**

Bingo is now the most popular leisure activity in the UK for women between 20 and 25 years old. The UK market has seen an influx in big brand names launching bingo games on their already established websites. Huge brand names such as Yahoo!, Virgin, AOL UK and most recently MSN UK are all now associated with the UK online bingo market. Gala Bingo the biggest bingo operator in the UK is also now online, this is as well as other brand names such as:

The Sun, plus most other tabloid newspapers  
Closer Magazine  
Hit UK TV shows such as Coronation Street, Emmerdale and I'm a Celebrity  
LastMinute.com  
Park Hampers  
Butlins  
Ladbroke's  
Littlewoods

A number of products from one of the UK's leading media companies, Emap plc. These include MagicFM, Top Sante, Yours and New Woman.

Keith Chegwin now has his own branded bingo game.

Former Atomic Kitten star and celebrity mum Kerry Katona signed a £500,000 deal to be the face of Bingos.co.uk.

## **Software providers**

Notable bingo software providers include:

Parlay Entertainment  
Playtech  
ChartWell Technology  
1Gaming  
Leapfrog Gaming  
PartyGaming  
WorldBingoNetwork

Categories: Bingo

# Blackjack

*Blackjack*, also known as *twenty-one*, is one of the most popular casino card games in the world. Much of blackjack's popularity is due to the mix of chance with elements of skill, and the publicity that surrounds card counting (keeping track of which cards have been played since the last shuffle). Blackjack's precursor was vingt-et-un ("twenty-one"), which originated in French casinos around 1700, and did not offer the 3:2 bonus for a two-card 21.

When blackjack was first introduced in the United States it wasn't very popular, so gambling houses tried offering various bonus payouts to get the players to the tables. One such bonus was a 10-to-1 payout if the player's hand consisted of the ace of spades and a black Jack (either the Jack of clubs or the Jack of spades). This hand was called a "blackjack" and the name stuck even though the bonus payout was soon abolished.

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## Rules

Blackjack hands are scored by their point total. The hand with the highest total wins as long as it doesn't exceed 21; a hand with a higher total than 21 is said to bust. Cards 2 through 10 are worth their face value, and face cards (jack, queen, king) are also worth 10. An ace's value is 11 unless this would cause the player to bust, in which case it is worth 1. A hand in which an ace's value is counted as 11 is called a soft hand, because it cannot be busted if the player draws another card.

The goal of each player is to beat the dealer by having the higher, unbusted hand. Note that if the player busts he loses, even if the dealer also busts. If both the player and the dealer have the same point value, it is called a "push", and neither player nor dealer wins the hand. Each player has an independent game with the dealer, so it is possible for the dealer to lose to one player, but still beat the other players in the same round.

The minimum bet is printed on a sign on the table and varies from casino to casino, and even table to table. The most common minimum in the U.S. is \$5 although these games can be difficult to find on the Strip in Las Vegas. After initial bets are placed, the dealer deals the cards, either from one or two hand-held decks of cards, known as a "pitch" game, or more commonly from a shoe containing four or more decks. The dealer gives two cards to each player, including himself. One of the dealer's two cards is face-up so all the players can see



it, and the other is face down. (The face-down card is known as the "hole card". In European blackjack, the hole card is not actually dealt until the players all play their hands.) The cards are dealt face up from a shoe, or face down if it is a pitch game.

A two-card hand of 21 (an ace plus a ten-value card) is called a "blackjack" or a "natural", and is an automatic winner. A player with a natural is usually paid 3:2 on his bet. In 2003 some casinos started paying only 6:5 on blackjacks - although this reduced payout has generally been restricted to single-deck games where card counting would otherwise be a more viable strategy, the move was decried by longtime blackjack players.

The play goes as follows:

- If the dealer has blackjack and the player doesn't, the player automatically loses.
- If the player has blackjack and the dealer doesn't, the player automatically wins.
- If both the player and dealer have blackjack then it's a push.
- If neither side has blackjack, then each player plays out his hand, one at a time.
- When all the players have finished the dealer plays his hand.

The player's options for playing his or her hand are:

- *Hit*: Take another card.
- *Stand*: Take no more cards.
- *Double down*: Double the wager, take exactly one more card, and then stand.
- *Split*: Double the wager and have each card be the first card in a new hand. This option is available only when both cards have the same value.
- *Surrender*: Forfeit half the bet and give up the hand. Surrender was common during the early- and mid-20th century, but is no longer offered at most casinos.

The player's turn is over after deciding to stand, doubling down to take a single card, or busting. If the player busts, he or she loses the bet even if the dealer goes on to bust as well.

After all the players have finished making their decisions, the dealer then reveals his or her hidden hole card and plays the hand. House rules say that the dealer must hit until he or she has at least 17, regardless of what the players have. In most casinos a dealer must also hit a soft 17 (such as an ace and a 6). The felt of the table will indicate whether or not the house hits or stands on a soft 17.

If the dealer busts then all remaining players win. Bets are normally paid out at the odds of 1:1.

Some common rules variations include:

- one card split aces: one card is dealt on each ace, player's turn is over.
- early surrender: player has the option to surrender before dealer checks for Blackjack.
- late surrender: player has the option to surrender after dealer checks for Blackjack.
- double-down restrictions: double-down allowed only on certain combinations.

- dealer hits a soft seventeen (ace-six, which can play as seven or seventeen)
- European No-Hole-Card Rule: the dealer receives only one card, dealt face-up, and does not receive a second card (and thus does not check for blackjack) until players have acted. This means players lose not only their original bet, but also any additional money invested from splitting and doubling down.

There are more than a few blackjack variations which can be found in the casinos, each has its own set of rules, strategies and odds. It is advised to take a look at the rules of the specific variation before playing.

## Insurance

If the dealer's upcard is an Ace, the player is offered the option of taking Insurance before the dealer checks his 'hole card'.

The player who wishes to take Insurance can bet an amount up to half his original bet. The Insurance bet is placed separately on a special portion of the table, which usually carries the words "Insurance Pays 2:1". The player who is taking Insurance is betting that the dealer's 'hole card' is a 10-value card, i.e. a 10, a Jack, a Queen or a King. Because the dealer's upcard is an Ace, this means that the player who takes Insurance is essentially betting that the dealer was dealt a natural, i.e. a two-card 21 (a blackjack), and this bet by the player pays off 2:1 if it wins.

Example: The player bets \$10, the cards are dealt, the player's hand is 19, and the dealer shows an Ace. The player takes Insurance by betting an additional amount of \$5. The dealer checks her hole card and sees that it's a 10-valued card. The player loses his \$10 bet on his blackjack hand, but he wins the insurance bet, so the player gets 2:1 on his \$5 Insurance wager and receives \$10 (on top of the \$5 which is returned to him). Note that the player came out even on that round (i.e. did not lose any money).

Conversely, a player may win his original bet and lose his Insurance bet. Let's say we have the same situation as above except this time the dealer's hole card is not a ten, but rather a seven. In this case the player instantly loses his \$5 Insurance wager. (All Insurance wagers are settled as soon as the dealer turns over her 'hole card', before all else.) But the player wins his \$10 bet. Note that the player made a net profit on that round.

Of course, a player may lose both his original bet and his Insurance bet.

Insurance is a bad bet for the player who has no direct knowledge nor estimation (e.g. through card counting) of the dealer's 'hole card' because Insurance has a negative expected value for the player. Even for the player who has been dealt a natural (a two-card 21) it is unwise to take Insurance. In such a case, the dealer usually asks the player "Even money?" This means that instead of 3:2, the player with the natural accepts to be paid off at 2:2. Thus it is exactly the same thing as buying Insurance, losing the Insurance bet and getting paid 3:2 on the natural. (If the player with the natural refuses the offer of "even money", and the dealer turns over his hole card to make a natural (a blackjack), it is a tie and the player's bet is returned to him.)

In casinos where a hole card is dealt, a dealer who is showing a card with a value of Ace or 10 may slide the corner of his or her facedown card over a small mirror or electronic sensor on the tabletop in order to check whether he has a natural. This practice minimises the risk of inadvertently revealing the hole card, which would give the sharp-eyed player a considerable advantage.

## **Basic strategy**

As in all casino games, the house has a statistical advantage over the players that will play itself out in the long run. But because blackjack, unlike other games, has an element of player choice, players can actually reduce the casino advantage to a small percentage by playing what is known as basic strategy. This strategy determines when to hit and when to stand, and also determines when doubling down or splitting is the correct action. Basic strategy is based on the player's point total and the dealer's visible card. There are slight variations in basic strategy depending on the exact house rules and the number of decks used. Under the most favorable conditions (single deck, downtown Las Vegas rules), the house advantage over a basic strategy player can be as low as 0.16%. Indeed, casinos offering special rules like surrender and double-after-split may actually be offering a positive expectation to basic strategy players; they are counting on players making mistakes to make money.

The following rules are beneficial to the player:

1. Doubles are permitted on any two-card hand except a blackjack.
2. Doubles are permitted after splitting.
3. Early surrender; the ability to forfeit half your wager against a face or ace before the dealer checks for blackjack.
4. Normal (aka "late") surrender.
5. Resplitting Aces.
6. Drawing more than one card against a split Ace.
7. Five or more cards with the total still no more than 21 as an automatic win (a "Charlie")

The following rules are detrimental to the player:

1. Less than 3:2 payout on blackjacks (6:5 and even 1:1 payouts have become common, especially in single-deck games, in Las Vegas since about 2003)
2. Dealer hits on soft seventeen (ace, six)
3. Splitting a maximum of once (to two hands)
4. Double down restricted to certain totals, such as 9-11 or 10,11
5. Aces may not be resplit
6. No-Peek (European) blackjack—player loses splits and doubles to a dealer blackjack
7. Player losing ties

## **Basic strategy tables**

		Dealer's face-up card										
		2	3	4	5	6	7	8	9	10	A	
		Hard totals										
		18-21	S	S	S	S	S	S	S	S	S	S
		17	S	S	S	S	S	S	S	S	S	Rs
		16	S	S	S	S	S	H	H	Rh	Rh	Rh
		15	S	S	S	S	S	H	H	H	Rh	Rh
		13-14	S	S	S	S	S	H	H	H	H	H
		12	H	H	S	S	S	H	H	H	H	H
		11	D	D	D	D	D	D	D	D	D	H
		10	D	D	D	D	D	D	D	D	H	H
		9	H	D	D	D	D	H	H	H	H	H
		5-8	H	H	H	H	H	H	H	H	H	H
		Soft totals										
Your hand	A,9	S	S	S	S	S	S	S	S	S	S	S
	A,8	S	S	S	S	D	S	S	S	S	S	S
	A,7	D	D	D	D	D	S	S	H	H	H	H
	A,6	H	D	D	D	D	H	H	H	H	H	H
	A,4-5	H	H	D	D	D	H	H	H	H	H	H
	A,2-3	H	H	H	D	D	H	H	H	H	H	H
	Pairs											
		A,A	SP	SP	SP	SP	SP	SP	SP	SP	SP	SP
		10,10	S	S	S	S	S	S	S	S	S	S
		9,9	SP	SP	SP	SP	SP	SP	SP	S	S	S
		8,8	SP	SP	SP	SP	SP	SP	SP	SP	Rsp	Rsp
		7,7	SP	SP	SP	SP	SP	H	H	H	H	H
		6,6	SP	SP	SP	SP	H	H	H	H	H	H
		5,5	D	D	D	D	D	D	D	H	H	H
		4,4	H	H	H	SP	SP	H	H	H	H	H
		2,2 3,3	SP	SP	SP	SP	SP	H	H	H	H	H

The above is a basic strategy table for the most common 6- to 8-deck, Las Vegas Strip rules. Specifically: dealer hits on soft 17, double after split allowed, multiple split aces, one card to split aces, blackjack pays 3:2, and (optionally) late surrender. Key:

*S* = Stand

*H* = Hit

*D* = Double

*SP* = SPlit

*Rh* = suRrender if allowed, otherwise Hit

*Rs* = suRrender if allowed, otherwise Stand

*Rsp* = suRrender if allowed, otherwise SPlit

In some LV Strip casinos you may still be able to find the older version of the multi-deck shoe game, where dealer stands on soft 17; those are usually high minimum (\$50 or more) tables. This version is much more advantageous to the player, but requires a slightly modified basic strategy table. Basic strategy for other decks. Interactive strategy tables for

each possible card-distribution in the shoe can be generated using a JavaScript based blackjack calculator.

## **Shuffle tracking**

There are well-established techniques other than card counting that can swing the advantage of casino 21 towards the player. All such techniques are based on the value of the cards to the player and the casino, as originally conceived by Edward O. Thorp. One such technique, mainly applicable in multi-deck games (aka shoes), involves tracking groups of cards (aka slugs, clumps, packs) during the play of the shoe, following them through the shuffle and then playing and betting accordingly when those cards come into play from the new shoe. This technique, which is admittedly much more difficult than straight card counting and requires excellent eyesight and powers of visual estimation, has the additional benefit of fooling the casino people who are monitoring the player's actions and the count, since the shuffle tracker could be, at times, betting and/or playing opposite to how a straightforward card counter would.

Arnold Snyder's articles in Blackjack Forum magazine were the first to bring shuffle tracking to the general public. His book, *The Shuffle Tracker's Cookbook*, was the first to mathematically analyze the player edge available from shuffle tracking based on the actual size of the tracked slug.

Other legal methods of gaining a player advantage at blackjack include a wide variety of techniques for gaining information about the dealer hole-card or the next card to be dealt.

## **Variants**

Spanish 21 provides players with many liberal blackjack rules, such as doubling down any number of cards (with the option to 'rescue', or surrender only one wager to the house), payout bonuses for five or more card 21's, 6-7-8 21's, 7-7-7 21's, late surrender, and player blackjacks always winning and player 21's always winning, at the cost of having no 10 cards in the deck (though there are jacks, queens, and kings). With correct basic strategy, a Spanish 21 game has a lower house edge than a comparable blackjack game. Another casino game similar to blackjack is Pontoon.

Certain rules changes are employed to create new variant games. These changes, while attracting the novice player, actually increase the house edge in these games. Double Exposure Blackjack is a variant in which the dealer's cards are both face-up. This game increases house edge by paying even-money on blackjacks and players losing ties. Double Attack Blackjack has very liberal blackjack rules and the option of increasing one's wager after seeing the dealer's up card. This game is dealt from a Spanish shoe, and blackjacks only pay even money.

Chinese Blackjack is played by many in Asia, having no splitting of cards, but with other card combination regulations.

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# Card counting

*Card counting* is a card game strategy used to determine when a player has a probability advantage. The term is used almost exclusively to refer to the tracking of the ratio of high cards to low cards in blackjack, although theoretically card counting can be used in some other card games.

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- 1 How card counting works in blackjack
- 2 History of blackjack card counting
- 3 Countermeasures against blackjack card-counters
- 4 See also

## How card counting works in blackjack

Card counting is based on the fact that high cards, and especially aces, are good for the player while low cards are good for the dealer. High cards are good for the player because they increase the chance of a player getting a "blackjack", which usually pays 3 to 2. High cards also increase the player's chance of success on his pair splits and double downs. Low cards are good for the dealer because they decrease the chance that the dealer will bust.

Card counters raise their bets when the ratio of high cards to low cards in the deck is skewed in their favor. They also make strategy adjustments based on the ratio of high cards to low cards. These two adjustments to their betting and playing strategy can give players a small mathematical advantage over the house.

Contrary to the popular myth, card counters do not need savant qualities in order to count cards, because they are not tracking and memorizing specific cards. Instead, card counters assign a heuristic point score to each card they see and then track only the total score. (This score is called the "count".)

Different card counting systems assign different point values to various cards, but one of the most common systems, the Hi-Lo Count, is illustrative. In this system, the cards numbered 2 through 6 are counted as +1 and all tens (which include 10s, jacks, queens and kings) and aces are counted as -1. The cards 7, 8, and 9 are given a count of 0. The Hi-Lo system exemplifies a "level one" counting system; other counting systems also assign +2 and -2 counts to certain cards and are called "level two" systems. Many card counting experts agree that the additional accuracy derived from a "level two" system is offset by the increased difficulty of keeping count and the greater likelihood of making a mistake.

Another commonly used card counting system is the "K-O", an unbalanced card counting system derived from Arnold Snyder's unbalanced Red 7 count, published in 1981. The first blackjack researcher to publish an unbalanced card counting system was Jacques Noir, in his 1968 book *Casino Holiday*. Unbalanced card counting systems eliminate the need to estimate remaining decks to be dealt, a common source of player error in card counting.

## History of blackjack card counting

American mathematician Dr. Edward O. Thorp is considered the father of card counting. His 1962 book *Beat the Dealer* (ISBN 0394703103) outlined various betting and playing strategies for optimal blackjack play. Although mathematically sound, some of the techniques described no longer apply as casinos took counter-measures (such as no longer dealing to the very last card). Also, the counting system described (10-count) is harder to use and less profitable than the point-count systems that have been developed since. A history of how counting developed can be seen in David Layton's documentary film, "The Hot Shoe."

Even before the publication of *Beat the Dealer*, however, a small number of professional card counters were beating blackjack in Las Vegas and casinos elsewhere. One of these early card counters was Jess Marcum, who is described in documents and interviews with professional gamblers of the time as having developed the first full-fledged point count system. Another documented pre-Thorp card counter was a professional gambler named Joe Bernstein, who is described in the 1961 book *I Want To Quit Winners*, by Reno casino owner Harold Smith, as an ace counter feared throughout the casinos of Nevada. And in the 1957 book, *Playing Blackjack to Win*, Roger Baldwin, Wilbert Cantey, Herbert Maisel, and James McDermott (known among card counters as "The Four Horsemen") published the first accurate blackjack basic strategy and a rudimentary card counting system, devised solely with the aid of crude mechanical calculators — what used to be called "adding machines".

From the early days of card-counting, some players have been hugely successful, including Al Francesco, the inventor of blackjack team play and the man who taught Ken Uston how to count cards, and Tommy Hyland, manager of the longest-running blackjack team in history. Ken Uston, though perhaps the most famous card counter through his 60 Minutes television appearance and his books, tended to overstate his winnings, as documented by players who worked with him, including Al Francesco and team member Darryl Purpose.

In the 1970s and 1980s, as computing power grew, more advanced (and more difficult) card counting systems came into favor. Many card counters agree, however, that a simpler and less advantageous system that can be played flawlessly for hours earns an overall higher return than a more complex system prone to user error.

In the 1970s Ken Uston was the first to write about a tactic of card counting he called the Big Player Team. The book was based on his experiences working as a "big player" (BP) on Al Francesco's teams. In big player blackjack teams a number of card counters, called "spotters", are dispatched to tables around a casino, where their responsibility is to keep track of the count and signal to the big player when the count indicates a player advantage. The big player then joins the game at that table, placing maximum bets at a player advantage. When the spotter indicates that the count has dropped, he again signals the BP to leave the table. By jumping from table to table as called in by spotters, the BP avoids all play at a disadvantage. In addition, since the BP's play appears random and irrational, he avoids detection by the casinos.

With this style of play a number of blackjack teams have cleared millions of dollars through the years. Well-known blackjack teams with documented earnings in the millions include those run by Al Francesco, Ken Uston, Tommy Hyland, various groups from the



Massachusetts Institute of Technology (MIT) and, most recently, a team called "The Greeks". Ken Uston wrote entertainingly about blackjack team play in *Million Dollar Blackjack* (ISBN 0897460685), although many of the experiences he represents as his own in his books actually happened to other players, especially Bill Erb, a BP Uston worked with on Al Francesco's team. Ben Mezrich also covers team play in his recent book *Bringing Down The House* (ISBN 0743249992), which describes how MIT students used it with great success. See also the Canadian movie *The Last Casino*.

The publication of Ken Uston's books both stimulated the growth of blackjack teams (Hyland's team and the first MIT team were formed in Atlantic City shortly after the publication of *Million Dollar Blackjack*) and increased casino awareness of the methods of blackjack teams, making it more difficult for such teams to operate. Hyland and Francesco soon switched to a form of shuffle tracking called "ace sequencing". This made it more difficult for casinos to detect when team members were playing with an advantage. In 1994, members of the Hyland team were arrested for ace sequencing and blackjack team play at Casino Windsor in Windsor, Ontario, Canada. It was documented in court that Nevada casinos with ownership stakes in the Windsor casino were instrumental in the decision to prosecute team members on cheating charges. However, the judge ruled that the players' conduct was not cheating, but merely the use of intelligent strategy.

## **Countermeasures against blackjack card-counters**

Counting cards in blackjack has become substantially more difficult as a result of casino countermeasures. The most common is the use of more decks, which decreases the player's advantage, but even in the few remaining single- and double-deck games, dealers will often shuffle prematurely or unusually frequently to defeat a suspected card-counter. However, for the casinos there is a downside to frequent shuffling: It reduces the amount of time that the noncounting players are playing and consequently losing money to the house. It has become common for casinos to use automatic shuffling machines to compensate for this. Some models of shuffling machines shuffle one set of cards while another is in play. Others, known as Continuous Shuffle Machines (CSMs) allow the dealer to simply return used cards to a single shoe to allow playing with no interruption. Because CSMs essentially force minimal penetration, they remove almost all possible advantage of traditional counting techniques. As a result, some blackjack players call for a boycott of tables using CSMs. In the case of online casinos, the deck is shuffled at the start of each new round, ensuring the house always has the advantage. However, some online casinos periodically animate the dealer shuffling the cards to give the illusion that the cards are shuffled infrequently.

Unfavorable rules can cut into a player's advantage, such as no double down after splitting, and having the dealer hit a soft 17 (ace, six which can play as 7 or 17.) Starting around 2004 a number of casinos began offering a 6:5 payoff on player blackjacks instead of the more traditional 3:2 payoff. These games are generally single-deck, inviting unwary card-counters and other players who believe they have an advantage. The inferior payoff substantially increases the house edge and makes the game unbeatable, even by a card-counter who is practicing the most sophisticated system perfectly.

A pitboss who determines that a player is a card-counter might either "back off" the player by inviting him/her to play any game other than blackjack, or will ban him/her from the casino itself. In jurisdictions where this is not legal, such as Atlantic City, a pitboss can require the player to flat-bet and disallow players from entering in the middle of a shoe. Such countermeasures effectively remove any chance of gaining an advantage from card counting in multi-deck games. The player's name and photo (from surveillance cameras) may also be shared with other casinos and added to a database of card-counters and cheaters run for the benefit of casino operators. One such blacklist was known as the Griffin Book, and was maintained by a company called Griffin Investigations. However, the Griffin Agency was forced into bankruptcy in 2005 after losing a libel lawsuit filed by professional gamblers.

Many casual card counters make small mistakes that cost the advantage they gain by counting. Two or three mistakes per hour may give back all of the counter's advantage. Even if one can count perfectly when practicing at home, it is much more difficult in an actual casino. The loud, distracting environments of most casinos, and even the availability of complimentary alcoholic beverages, play roles as casino counter-measures.

Casinos look out for known card counters, who may be banned from play depending on regulatory commission rules. They also look for suspicious actions such as a long series of small bets followed by large one. Monitoring player behavior to assist in this identification falls to on-floor casino personnel ("pit bosses") and casino surveillance personnel who may use video surveillance ("the eye in the sky") as well as computer analysis to try to spot playing behavior indicative of card counting; early counter-strategies featured the dealer learning to count the cards themselves to recognise the patterns in the players. In addition, many casinos employ the services of various agencies, such as Biometrica, who claim to have a catalog of advantage players. If a player is found to be in such a database, he will almost certainly be stopped from play and asked to leave regardless of his table play. For successful card counters, therefore, skill at "cover" behavior to hide counting and avoid "drawing heat" and possibly being barred, may be just as important as playing skill.

Casinos may alter the game's dynamic against card counters by raising the minimum or lowering the limit on a table with a suspected counter, or by reshuffling sooner than the normal end of the shoe if they think that the player is offering a large bet on a positive count.

There have been some high-profile lawsuits involving whether the casino is allowed to bar card-counters. Essentially, card-counting, if done in your head and with no outside assistance from devices such as blackjack computers, is not illegal, as making calculations within one's own mind is not an arrestable offence. Using an outside device or aid, however, was found illegal in a court case in Nevada involving Keith Taft, a professional gambler known for his innovations in blackjack computers and other gambling technology. In this case, two members of Keith Taft's team were convicted of cheating for using a video device to gain knowledge of a blackjack dealer's hole card. At the time of the Taft team trial, however, there was no anti-device law in Nevada, and the law that was written after this case is considered by many attorneys to be unconstitutionally vague. Still, the law has been adopted by most other states with casinos, and no player has yet tried the constitutionality of the law.

Casinos don't tolerate card counters or practitioners of other legal professional gambling techniques willingly and, if permitted by their jurisdiction, may ban counters from their casinos; in Nevada, where the casinos are ruled to be private places, the only prerequisite to

a ban is the full reading of the Trespass Act to ban a player for a year. Some skilled counters try to disguise their identities and playing habits; however, some casinos have claimed that facial recognition software can often match a camouflaged face with a banned one. In the experience of most professional gamblers, this is untrue, and a 2004 book by a Las Vegas casino surveillance director, *The Card Counter's Guide to Casino Surveillance*, also declares this assertion to be an overstatement. Approximately 100 casinos in the United States used the Griffin Investigations consulting firm to help them track down and monitor card counters, before the firm's bankruptcy as a result of a lawsuit for libel filed by professional gamblers.

Other modern technology that has been marketed as an aid in catching card counters includes the MindPlay system and Blackjack Survey Voice software.

### See also

- Blackjack
- MIT Blackjack Team
- Cheating in poker

**Categories:** Blackjack | Gambling terminology

## Chinese Blackjack

*Chinese Blackjack* is also known as *21-point*, *ban-nag* (Cantonese) or *ban-luck* (Hokkien). It is a gambling game played in South East Asia which bears similarity to conventional Blackjack.

The game uses one or two 52-card deck(s), playable by any number of players. One of them is to be a dealer, or they may take turn to be the dealer, e.g. each person deals 3 rounds or 3 winning rounds. In this article, players beside the dealer shall be denoted "players".

It is to be said that although Chinese Blackjack has some standard rules, there exist several house rules that are played in some games. It will be stated in the rules below if it is a house rule. House rules mean that they are not played in standard Chinese Blackjack games.

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- 1 Dealing
- 2 Point counting rules
- 3 Checking for Blackjack
  - 3.1 Ban-Ban
  - 3.2 Ban-Nag
  - **3.3 15 Points (House Rule)**
- 4 The players' turns
- 5 The dealer's turn

## Dealing

Players place their bets. The dealer shuffles the cards thoroughly and ask the players to "cut the hand" by which a player take a number of cards off from the shuffled deck, and the dealer deals the cards clockwise or anti-clockwise starting from himself. All cards face down. He deals two cards per person and put back the extra cards to the "cut hand".

## Point counting rules

- K, Q, J = 10
- 10, 9, 8, 7, 6, 5, 4, 3, 2 = respective face value
- If your total number of cards is 2, then A = 11 or 10
- If your total number of cards is 3, then A = 1 or 10
- If your total number of cards is 4 and above, then A = 1

## Checking for Blackjack

Each player including the dealer checks his hand for the following special combinations

- A + A = ban-ban
- A + (10/J/Q/K) = ban-nag
- 15 points = free hand

## Ban-Ban

If a player receives a ban-ban, he is deemed to have won his bet tripled from the dealer immediately, unless the dealer receives a ban-ban (a tie) or a free hand (an escape).

If the dealer receives a ban-ban, he is deemed to have won all player bets tripled immediately, unless the player receives a ban-ban (a tie) or a free hand (an escape)

## Ban-Nag

If a player receives a ban-nag, he wins his bet doubled from the dealer immediately, unless the dealer has a ban-ban (player loses), or a ban-nag (a tie), or a free hand (an escape).

If the dealer receives a ban-nag, he wins all player bets doubled immediately, unless the player has a ban-ban (dealer loses), or a ban-nag (a tie), or a free hand (an escape).

## 15 Points (House Rule)

If the player has a free hand, he may decide to continue or not to continue with the game.

If the dealer has a free hand, he may decide to continue or not to continue with the game. If he chooses not to, then the cards shall be collected back, reshuffled and dealt again.

## The players' turns

After checking for Blackjack, each player takes turn to make the following decisions, depending on the conditions. The player may add more than one card.

- total < 16, hit (add one card).
- total  $\geq$  16 and < 21, hit or stand.
- total = 21, stand.
- total > 21, busts.
- number of cards = 5 (*5-Dragon*), collect win from dealer immediately, double the bet.
- number of cards = 5 and total = 21, collect win from dealer immediately, triple the bet. (House Rule)

## The dealer's turn

After all players are done, the dealer has to make the following decisions, depending on the conditions. The dealer may hit more than one card.

- total < 16, hit (add one card).
- total  $\geq$  16 and < 21, hit or reveal some players' hands then hit.
- total = 21, reveal all players' cards.
- total > 21, dealer busts.
- number of cards = 5 (*5-Dragon*), collect win from players immediately, double all bets.
- number of cards = 5 and total = 21, collect win from players immediately, triple all bets. (House Rule)

If the dealer chooses to reveal a player's hand,

- player busts or total of dealer > total of player, dealer wins the bet (double if dealer has 21 points (House Rule) )
- total of dealer = total of player, tie.

- total of dealer < total of player, player wins, (double if player has 21 points (House Rule) )

If dealer busts, dealer pay all players their bets (double if player has 21 points (House Rule) ) unless the player also busts.

After the dealer has settled with all players, the cards are collected back and a new round begins.

Categories: Blackjack

## Double Attack Blackjack

*Double Attack Blackjack* has very liberal blackjack rules and the option of increasing one's wager after seeing the dealer's up card. This game is dealt from a Spanish shoe, and blackjacks pay only even money.

**Categories:** Gambling | Blackjack

## Double Exposure Blackjack

*Double Exposure Blackjack* is a variant of blackjack in which both the dealer's cards are revealed to players at the start of the hand. Knowing the dealer's hand provides significant information, and without rules modifications would be advantageous to the player.

The main rules changes to provide the casino with the advantage are even money payouts on blackjack (compared to 3:2 at normal tables) and ties losing (compared to pushing in standard blackjack).

Other rules changes also exist to the detriment of players. Certain tables restrict doubling down and splitting, and do not allow doubles after splits.

The game was invented by Bob Stupak, former owner of Vegas World and Stratosphere casinos.

**Categories:** Gambling | Blackjack

## Kelly criterion

The *Kelly Criterion* or as it is sometimes referred to as the Kelly formula is a formula used to maximize the long-term growth rate of repeated plays of a given gamble that has positive expected value. The formula specifies the percentage of the current bankroll to be bet at each iteration of the game. In addition to maximizing the growth rate in the long run, the formula has the added benefit of having zero risk of ruin, as the formula will never allow a loss of 100% of the bankroll on any bet. An assumption of the formula is that currency and bets are infinitely divisible, though this is met for practical purposes if the bankroll is large enough.

The most general statement of the Kelly criterion is that long-term growth rate is maximized by finding the fraction  $f^*$  of the bankroll that maximizes the expectation of the logarithm of the results. For simple bets with two outcomes, one involving losing the entire amount bet, and the other involving winning the bet amount multiplied by the payoff odds, the following formula can be derived from the general statement:

$f^* = (bp - q) / b$  where  $f^*$  = percentage of current bankroll to wager;  $b$  = odds received on the wager;  $p$  = probability of winning;  $q$  = probability of losing =  $1 - p$ .

As an example, if a gamble has a 40% chance of winning ( $p = 0.40$ ), but the gambler receives 2:1 odds on a winning bet, the gambler should bet 10% of her bankroll at each opportunity, in order to maximize the long-run growth rate of the bankroll.

For even-money bets (i.e. when  $b = 1$ ), the formula can be simplified to:

$$f^* = p - \frac{q}{b}$$

The Kelly Criterion was originally developed by AT&T Bell Laboratories physicist John Larry Kelly, Jr, based on the work of his colleague Claude Shannon, which applied to noise issues arising over long distance telephone lines. Kelly showed how Shannon's information theory could be applied to the problem of a gambler who has inside information about a horse race, trying to determine the optimum bet size. The gambler's inside information need not be perfect (noise-free) in order for him to exploit his edge. Kelly's formula was later applied by another colleague of Shannon's, Edward O. Thorp, both in blackjack and in the stock market.[1]

## Cited References

1. ^ American Scientist online: Bettor Math, article and book review by Elwyn Berlekamp  
Categories: Blackjack

## MindPlay

*MindPlay* is a technology designed to monitor blackjack players' actions while playing in a casino.

Monitoring a person's play traditionally is done visually, by the dealer, floorperson, pitboss, and the eye in the sky (video surveillance). If one of these observers notices something unusual in a person's play, they will do what they can to either

1. determine if the person is a cheat or a card-counter, or

2. change the game to turn the odds back in favor of the casino, through more frequent card-shuffling or other methods, or
3. casino personnel may bar a player they think is a card counter, even though the practice is legal.

(Cheating by various means is illegal, though, and may result in arrest.)

MindPlay utilizes a specially-designed blackjack tabletop that incorporates many features to monitor players' actions:

- Specially encoded playing cards, using invisible ink and barcodes.
- 14 tiny cameras built into the dealer's chip tray (which is now slightly elevated to account for the cameras). These cameras can read every card in play by reading the invisible ink printed on them.
- Special chips, so that sensors embedded in the table can automatically calculate each player's bet more accurately than a dealer or pitboss could visually.

As MindPlay monitors every card that has been played along with players' betting habits, it is also counting cards just as a card counter would do while sitting at the table. If MindPlay notices that bets are changing dramatically at the same time that a card counter would typically make those bets, MindPlay will notify casino officials that they may want to investigate further.

MindPlay tables cost around 20,000 USD.

Because MindPlay tends to thwart their efforts to beat a blackjack game, card counters generally avoid casinos which use the system and its competitors, and often circulate news of such installations on various Internet sites. Some card counters have tried to make the general public aware of the use of these systems, in an effort to convince others not to patronize the games. Indeed, MindPlay has been somewhat slow to spread among American casinos, partly because of the cost (which may be more than what might be lost to a card-counter) and partly because of negative reaction by players.

MindPlay was first released in 2003. Since then, several newer-generation systems have been developed for chip tracking and card tracking.

For instance, RFID for chip tracking is gaining ground with casinos. The advantage of RFID seems to be that it can be used for games other than blackjack and also for more comprehensive tracking of chips throughout the casino. In other games, such technology would normally be used to track a player's action for rating purposes, to more accurately determine the comps a player may be given.

Two other companies offer automated card recognition capability. Tangam Gaming's solution tracks cards as well as player decisions using hidden overhead cameras, while ShuffleMaster only tracks cards, using a special electronic shoe.

Categories: Blackjack

## **Seven twenty-seven**



*Seven Twenty-Seven* is a vying game similar in some respects to poker, and often played as a "dealer's choice" variant at home poker games. It uses the same equipment and betting system, but the value of hands does not use traditional poker hand rankings, either high or low. Rather, only the sum of the cards is used to calculate the worth of a hand. The game is somewhat of a cross between blackjack hands and poker bluffing.

The game play proceeds like this:

- Each player is dealt a downcard and an upcard.
- A betting round begins with the player on the dealer's left, and proceeds exactly as in poker: all players must either equal the largest bet or drop out.
- After the betting, each player may draw a card, face up, in turn from the dealer's left. If all players pass on their opportunity to draw, there is one more round of betting, followed by a poker-style showdown. Otherwise the game continues with another betting round (often beginning to the left of the player who began the previous round) and another draw, so there can be as few as two betting rounds in the game, but more often three or four.

Numbered cards are scored at face value; face cards count for one-half a point. Aces count for one and eleven, so a hand with a five and two aces scores 7 and 27 at the same time.

On showdown, the pot is split in half, with the hand(s) valued closest to 7 and the hand(s) valued closest to 27 each winning one half of the pot. If there is a tie where two players are off by the same amount, but in different directions (6 to 8), the lower hand wins. If there is an exact tie, that half-pot is split again among the tied players. Ties are common. The same player may contest for both high and low, usually because of aces. A player with a five and two aces can win the whole pot.

There are a few variations in rules that complicate things somewhat: first, the rule about ties in different directions varies; also, some players play with a declaration, while others play cards speak.

**Categories:** Stud poker | Blackjack

## Spanish 21

*Spanish 21* is an increasingly popular variant of blackjack owned by Masque Publishing, Inc. "Unlicensed" (but equivalent) versions may be called *Spanish blackjack*.

Spanish 21 uses the following rules:

- The game is played with six or eight decks dealt from a shoe. Each deck is a standard poker deck with the tens (but not face cards) removed, hence the name: a traditional Spanish deck consists of four sets of 1 through 9, a Jack, a Knight and a King; there are no tens. All cards have the same values as in blackjack.
- Blackjack pays 3:2.
- Hitting, standing, and splitting all follow the same rules as in blackjack, except drawing to split aces is allowed. Resplitting is also allowed.
- The player may surrender on the first two cards or after doubling down.

- The dealer always checks for blackjack with a face card showing before play continues, as in American blackjack games.
- The player may double down on any total, even after taking hit cards.
- In some casinos, the player may redouble after doubling down.
- A total of 21 always wins for the player. It never pushes against the dealer's 21.
- A five-card 21 pays 3:2, a six-card 21 pays 2:1, and a 21 with seven or more cards pays 3:1. However, these bonus payouts do not apply if the 21 was the result of doubling.
- 6-7-8 of mixed suits pays 3:2, of the same suit pays 2:1, and of spades pays 3:1.
- Suited 7-7-7 against a dealer 7 pays a large bonus (for example, \$1000 for bets \$5-24 and \$5000 for bets \$25 and over). All other players at the table receive a \$50 "envy bonus". This rule does not apply after splitting.
- In most casinos, dealer hits soft 17.

The removal of the tens in each deck favors the dealer, however, the other additional rules all favor the player (except for dealer hitting soft 17), and usually result in a low house edge, often lower than traditional blackjack.

There are no popular card counting methods in Spanish 21, though it would likely generate less scrutiny. Of course, any counting system applied must account for the fewer ten-point cards in the shoe.

Categories: Blackjack

## Ten and a half

*Ten and a half* is a card game with rules very similar to blackjack. The game is popular in China and is usually used for gambling.

### Rules

The rules are very similar to blackjack, with the following exceptions:

- A, 2, 3, 4, 5, 6, 7, 8, 9 and 10 are worth their face points. J, Q and K are worth half point.
- Players and dealer are dealt one card at the beginning.
- A player is busted when he exceeds 10 and a half point.
- Any player (but not the dealer) who gets five cards without busting immediately wins his bet.

- Any player who gets 10 and a half point in the first two cards immediately wins his bet.
- There is no splitting, doubling or insurance.
- Dealer usually does not have pre-set rule on when he should stop drawing more cards.
- There is no pushing. If the dealer and a player have the same point, dealer wins.
- Winners are usually paid 1:1.

Categories: Blackjack

# Dice games

*Dice games* are games that use or incorporate a die, usually as a random device.

## Dice Games

The following are games which largely if not entirely depend on dice:

- Blates
- Cosmic Wimpout
- Craps
- Dice 10000 / 5000 / 1000
- Farkel
- Kuriki
- Liar's dice
- Mexico
- Mia
- Mr. Three
- Pig
- Shut the Box
- Yahtzee
- Cho-han bakuchi

## Collectible Dice Games

Patterned after the success of collectible card games, a number of collectible dice games have been published. Although most of these collectible dice games are long out-of-print, there is still a small following for many of them.

Some collectible dice games that were published includes:

- Dragon Dice (SFR, Inc.)
- Dicemaster (Iron Crown Enterprises)
- Diceland
  - Throwing Stones (Gamesmiths, Inc.)
  - Demon Dice also known as Chaos Progenitus (Fast Forward Games)
  - Marvel Super Dice (TSR, Inc.)
  - Star Trek The Next Generation Collectible Dice Game (Alderac Entertainment Group)
- Rolled Bones (D'Ice, Inc.)
- Harry Potter Dicers (Hasbro)
- Cookie Fu (Blue Kabuto)

Categories: Dice

# Backgammon

*Backgammon* is a board game for two players. Each player has fifteen pieces (checkers) which move between twenty-four triangles (points) according to the roll of two dice. The objective of the game is to be first to bear off, that is, to move all fifteen checkers off the board. The oldest recorded game in history, backgammon traces its roots to the ancient Mesopotamian game *tabula*, which appears in an epigram of Byzantine Emperor Zeno (476–481 A.D.). Further archaeological excavations have placed the possible date of origin of backgammon to 3000 B.C.

Though the gameplay is quite basic—each player is trying to move his checkers to his home board and then bear them off before his opponent is able to do so—backgammon incorporates strategy insofar as with each dice roll, the player must choose between multiple options for movement of the checkers. Furthermore, the doubling cube, which raises the stakes of the present game when a match consists of multiple games, and rules like the Crawford Rule and the Jacoby Rule, introduce more strategic intricacies. Experts have also developed a nomenclature to define commonly used general strategies for play such as the running game and the backgame.

As with chess, backgammon has been significantly interfaced with computer technology. By 1979, Hans Berliner's BKG 9.8 program had defeated a world champion backgammon player, and since then neural network and other approaches have improved the playing quality of the virtual backgammon opponent. In addition, a number of other computer programs, most notably the backgammon software *Snowie*, have combined the capabilities of an intelligent opponent with extensive statistical analyses of individual moves and possible outcomes.

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## History

Backgammon is the oldest known recorded game. Traditionally, it was believed to have originated in ancient Mesopotamia, (present-day Iraq), also see Royal Game of Ur. In English, the word backgammon is believed to be derived from "back" plus the Middle English word "gamen" (game).

Tabula was a form of backgammon played by the ancient Romans. It was called tabula, which means 'table' or 'board', since it was played on a special board. Tabula bears some similarity to Egyptian Senet, which dates back to at least 3000 BC.

The game of Tabula was similar to modern-day Backgammon in that the same board was used with fifteen pieces allotted to each player with the object of the game being to be the first to bear off all fifteen pieces. It differed in that the game began with no pieces on the board so that these first had to be entered by the roll of the dice. Likewise, three dice were used instead of two. Finally, both players entered the board from the same table and moved around the board in the same counterclockwise direction.

Recent excavations at the "Burnt City" in Iran showed that a form of backgammon existed there around 3000 BC. The artifacts include two dice and 60 pieces. The set is believed to be 100 to 200 years older than the oldest set found in Ur.

## Rules

Backgammon is a simple game with deep strategic elements. It does not take long to learn to play, although obscure situations do arise which require careful interpretation of the rules. The playing time for each individual game is short, so it is often played in matches, for example the first to five points. Game and match are used in Backgammon to refer to these distinct elements, as in, "I won two games in a row, but then she won three in a row and I lost the match, three points to two."

In short, players are trying to get all of their pieces past their opponent's pieces. This is difficult because the pieces are scattered at first, and may be blocked or captured by the opponent's pieces.

Each side of the board has a track of twelve adjacent spaces, called points and usually represented by long triangles of alternating (but meaningless) color. The tracks are imagined to be connected across the break in the middle and on just one edge of the board, making a continuous line (but not a circle) of twenty-four points. The points are numbered from 1 to 24, with checkers always moving from higher-numbered points to lower-numbered points.

The two players move their checkers in opposite directions, so the 1-point for one player is the 24-point for the other. Some recorded games, however, keep the numbering of the points constant from the perspective of one player.

Each player begins with two checkers on his 24-point, three checkers on his 8-point, and five checkers each on his 13-point and his 6-point.

Note that the board as shown can be flipped horizontally, with starting positions and direction of play likewise flipped but with no changes to the mechanics of gameplay. The two orientations are equally common and game boards are all designed to be played both ways.

Points one to six, where the player wants to get his pieces to, are called the home board or inner board. A player may not bear off any checkers unless all of his checkers are in his home board. Points seven to twelve are called the outer board, points thirteen to eighteen are the opponent's outer board, and points nineteen to twenty-four are the opponent's home board. The 7-point is often referred to as the bar point and the 13-point as the mid point.

At the start of the game, each player rolls one die. Whoever rolls higher starts his first turn using the numbers on the already-rolled dice. In case of a tie, the players roll again. The players alternate turns and roll two dice at the beginning of each turn after the first.

After rolling the dice a player must, if possible, move checkers the number of points showing on each die. For example, if he rolls a 6 and a 3, he must move one checker six points forward and another one three points forward. The dice may be played in either order. The same checker may be moved twice as long as the two moves are distinct: six and then three, or three and then six, but not nine all at once.

If a player has no legal moves after rolling the dice, because all of the points to which he might move are occupied by two or more enemy checkers, he forfeits his turn. However, a player must play both dice if it is possible. If he has a legal move for one die only, he must make that move and then forfeit the use of the other die. (If he has a legal move for either die, but not both, he must play the higher number.)

If a player rolls two of the same number (doubles) he must play each die twice. For example, upon rolling a 5 and a 5, he must play four checkers forward five spaces each. As before, a checker may be moved multiple times as long as the moves are distinct.

A checker may land on any point occupied by no checkers or by friendly checkers. Also it may land on a point occupied by exactly one enemy checker (a lone piece is called a blot). In the latter case the blot has been hit, and is temporarily placed in the middle of the board on the bar, i.e., the divider between the home boards and the outfields. A checker may never land on a point occupied by two or more enemy checkers. Thus no point is ever occupied by checkers from both players at the same time.

Checkers on the bar re-enter the game through the opponent's home field. A roll of 1 allows the checker to enter on the 24-point, a roll of 2 on the 23-point, etc. A player with one or more checkers on the bar may not move any other checkers until all of the checkers on the bar have re-entered the opponent's home field.

When all of a player's checkers are in his home board, he may remove them from the board, or bear them off. A roll of 1 may be used to bear off a checker from the 1-point, a 2 from the 2-point, etc. A number may not be used to bear off checkers from a lower point unless there are no checkers on any higher points. For example, a 4 may be used to bear off a checker from the 3-point only if there are no checkers on the 4-, 5-, and 6-points.

A checker borne off from a lower point than indicated on the die still counts as the full die. For instance, suppose a player has only one checker on his 2-point and two checkers on his 1-point. Then on rolling 1-2, he may move the checker from the 2-point to the 1-point (using the 1 rolled), and then bear off from the 1-point (using the 2 rolled). He is not required to maximize the use of his rolled 2 by bearing off from the 2-point.

If one player has not borne off any checkers by the time his opponent has borne off all fifteen, he has lost a gammon, which counts for twice a normal loss. If a player has not borne off any checkers, and still has checkers on the bar, or in his opponent's home board by the time his opponent has borne off all fifteen, or both, he has lost a backgammon, which counts for triple a normal loss. Sometimes a distinction is made between pieces in the opponent's home board (triple loss) and pieces on the bar (quadruple loss).

## **The doubling cube**

To speed up match play and to increase the intensity of play and the need for strategy, a doubling cube is usually used. A doubling cube is a 6 sided die that instead of the numbers 1, 2, 3, 4, 5, 6 on it, has the numbers 2, 4, 8, 16, 32, 64 on it. If a player believes his position to be superior he may, before rolling the dice on his turn, double, i.e., demand that the game be played for twice the current stakes. The doubling cube is placed with the 2 side face up to show that the game's value has been doubled. His opponent must either accept the challenge or resign the game on the spot. Thereafter the right to redouble (double again) belongs exclusively to the player who last accepted a double. If this occurs, the cube is placed with the face of the next power of 2 showing.

The game rarely is redoubled beyond 4 times the original stake, but there is no theoretical limit on the number of doubles. Even though 64 is the highest number on the doubling cube, the stakes may rise to 128, 256, 512 and so on.

## **Beavers**

A common rule allows beavers - the right for a player to immediately redouble when offered the doubling cube, while retaining the cube instead of giving it back up. (The redouble must be called before the originally doubling player rolls the dice.) In this way, the stakes of the game can rise dramatically.

Beavers are commonly allowed when backgammon is played for money game by game, and usually not allowed in matches.



## **Raccoons**

Another common rule that follows the beaver rule is a raccoon simply means that once a player had said beaver to an initial double and the opponent believes that was a mistake and wants to take advantage of it he can then call a raccoon and double the cube once more.

Similar to beavers, raccoons are commonly allowed when backgammon is played for money game by game, and usually not allowed in matches.

## **Jacoby Rule**

The Jacoby Rule makes gammons and backgammons count for their respective double and triple points only if there has been at least one use of the doubling cube in the game. This encourages a player with a large lead in a game to double, and thus likely end the game, rather than see the game out to its conclusion in hopes of a gammon or backgammon. The Jacoby Rule is widely used in money play, but is not used in match play.

## **Crawford Rule**

The Crawford Rule makes match play much more fair for the player in the lead. If a player is one point away from winning a match, his opponent has no reason not to double; after all, a win in the game by the player in the lead would cause him to win the match regardless of the doubled stakes, while a win by the opponent would benefit twice as much if the stakes are double. Thus there is no advantage towards winning the match to being one point shy of winning, if one's opponent is two points shy!

To remedy this situation, the Crawford Rule requires that when a player becomes one single point short of winning the match, neither player may use the doubling cube for a single game, called the Crawford Game. As soon as the Crawford Game is over, any further games use the doubling cube normally.

Not quite as universal as the Jacoby Rule, the Crawford Rule is widely used and generally assumed to be in effect for match play.

## **Automatic doubles**

When automatic doubles are used, any re-rolls that players must make at the very start of a game (when each player rolls one die) have the side-effect of causing a double. Thus, a 3-3 roll, followed by a re-roll of 5-5, followed by a re-roll of 1-4 that begins the game in earnest, will cause the game to be played from the start with 4-times normal stakes. The doubling cube stays in the middle, with both players having access to it. The Jacoby Rule is still in effect.

Automatic doubles are common in money games (upon agreement). They are never used in match play.

Known variant - all same but 6-6 triples rather than doubles stakes.

## **Five Basic Strategies**

Here are five strategies that are frequently used. You need to be able to switch strategies instantly as the course of the game unfolds.

### **The Running Game**

The most direct, and frequently the best strategy is simply to avoid being hit, trapped, or getting into mutually blocked stand-offs. Obviously, the running game is most desirable when the player is ahead in the race.

### **The Holding Game**

The player keeps a point, high in his opponent's board or on his opponent's bar point, while he builds his board. The player may win by hitting an opponent's blot from the held point, or by rolling large doubles that allow the player to break the point and take the racing lead.

### **The Priming Game**

This involves building a 6-long wall of checkers, or at least as long as you can manage, to block in the opponent's checkers that are behind the blockade. You can build the wall anywhere between your 11-point and your 2-point and then shuffle it into your home board as the game progresses.

### **The Blitz**

This involves closing your home board as quick as possible while keeping your opponent on the bar. For example, if your opponent rolls an early 2 and moves one checker from your 1-point to your 3-point and you then roll a 5-5, you can play 6/1 6/1 8/3 8/3. Your opponent is now in serious trouble because they have 2 checkers on the bar and you have closed half your inner board!

### **The Backgame**

This is where you have 2 or more anchors in your opponent's home board. (An anchor is a point occupied by at least 2 of your checkers.) It should be used when you are significantly behind as it much improves your chances. The best places for anchors are towards your opponent's lower point and either on adjacent points or with a single point in between. Timing is crucial for an effective backgame: after all, there's no point having 2 nice anchors and a solid wall in your own home board if you are then forced to dismantle this straight away, while your opponent is getting their checkers home, because you don't have other spare checkers to move! In this case, it's better to have checkers on the bar so that you can preserve your position until your opponent gives you a chance to hit, so it can be a good idea to try and get your opponent to hit them in this case!

Some people go for a backgame from the outset, but this is a mistake. The backgame is a losing strategy: it's just that this strategy makes you less likely to lose if you are already losing!

## Sample game

A few turns from the beginning of a sample game will illustrate the rules of movement. To start the game blue rolls a 4 and green rolls a 1, so blue takes the first turn playing a 4,1. This is an unfavorable opening roll, arguably the worst possible, but blue uses it the best he can. He takes a checker from each of his heavy points by playing 13-9, 6-5.

It is seldom useful to have five checkers on the same point, so blue starts to spread his checkers around. He is threatening to build a prime, i.e., a blockade to prevent green's two trailing checkers from getting home. The disadvantage of blue's choice is that it isn't very safe. It leaves two blots which green might hit. Some experts prefer the less aggressive but safer move of 24-23, 13-9.

Green rolls a 4, 4. This is an extremely lucky roll. Not only can he hit both of blue's blots with 1-5\*-9\*, he also has two more fours to play. He may, for example play 19-23(2), moving two checkers from his 6-point to the 2-point. This leaves blue with two checkers on the bar, trying to re-enter against green's home board, which has two points blocked by green.

Green was wise to hit twice, because it disrupts blue's efforts to build a prime, and it puts blue considerably behind in the race. Those two checkers must come all the way around the board before blue can begin to bear off.

In contrast, green's decision to make the 2-point was strategically dubious. Though it may prevent blue from entering with both checkers, and there is some chance green will be able to build a strong home board before blue gets organized, increasing the chances of winning a gammon, the disadvantage is that green will now find it difficult to build a prime. If blue manages to make an advanced anchor, i.e., get two of his back checkers on green's 3-, 4-, or especially the 5- point, then green's blocking game is busted.

Green would be in better shape had he played 12-16(2), keeping open the option to block or attack depending on blue's next roll.

Blue rolls 5, 2. The only legal move is Bar-20. The two can't be played from the bar because green owns his 2-point, and until blue has played all his checkers off the bar, he can't play anywhere else. Therefore the 2 is forfeited and blue's turn is over.

Green got what he wanted, in that blue was not able to enter both checkers, but the fight is far from over. Green must hit the blot on his next roll, or else blue has a fifty-fifty chance to cover his blot and take a fairly strong position. Even if green does hit, blue has many rolls to hit back. A war for green's 5-point will shape the character of the game in the near future.

## Backgammon as a gambling game

Backgammon is often played for money stakes. The most common ways that gamblers play is to set a wager on which player can be first to reach a certain score, achieved over however many games necessary; to assign a monetary value to each game (affected by the doubling die, of course), and to play until a certain score is reached or passed; or to assign a monetary value to each game and play games until either player chooses to stop. Backgammon is also available, though not often, at casinos.

## Backgammon Chouette

A backgammon chouette is an adaptation of backgammon for three or more players, generally played for money.

Before beginning, a monetary value is agreed upon as the basic stake for each game. Dice throws determine an initial ranking. One player is in the box, the next is the captain, and the others take their places as members of the captain's team. The captain, who may take advice from the team, plays against the player in the box. Traditionally, there is one doubling cube. This is controlled by the player in the box and the captain (in the usual way), except that, when the player in the box offers a double, each member of the team may accept or decline independently. Nowadays, however, the team members often operate separate doubling cubes, in which case they may accept, decline and offer doubles independently. Whichever system is employed, a team member who has refused a double drops out of the game and may no longer advise the captain. If the captain drops out of the game, the highest-ranking team member takes over as captain.

At the end of each game, the box settles up with the other players individually. If the player in the box has won, he retains the box and the (original) captain becomes the lowest-ranking team member. If the (final) captain has won, he takes over from the player in the box, who joins the team as its lowest-ranking member. The highest-ranking member of the team becomes its captain for the next game.

[The word 'chouette' is French for any of a seemingly arbitrary collection of species of typical (i.e. non-barn) owls.]

## Backgammon in the Middle East and Central Asia

Backgammon is widely played in the Middle East and Central Asia, particularly in cafes. There are four main variants played in the Middle East:

1) the European game as described above and known as **ifranjiah** (meaning Frankish in Arabic); "Takhte Nard" is the Iranian version.

2) **shesh besh** (Shesh means six in Persian and Hebrew and Besh means five in Turkish) in Azerbaijan, Israel, and Uzbekistan and tavla in Turkey;

3) **mahbusa** (meaning 'imprisoned')

4) **maghribiyya**.

The most popular of those is probably mahbusa. In this game each player's 15 checkers are all initially positioned on his 24-point. When hit, an isolated checker is not placed on the bar. Rather the hitting piece sits on top of the hit piece forming a block, i.e. the same rules apply as if the point was occupied by two or more pieces of the same colour. The checker which has been hit is 'imprisoned' and cannot be moved until the opponent removes his piece: hence the name of the game. Sometimes a further rule requires that a player must bring his first checker to the opponent's home board before moving any other checkers. Whether or not this rule is applied, a rapid advance to the opponent's side of the board is desirable as imprisoning the opponent's checkers on his home table is highly advantageous.

An interesting feature of backgammon as played in some Arab countries is that Persian or Kurdish numbers, rather than Arabic ones, are called out by a player announcing his dice rolls.

People in Iranian plateau and Caucasus region, especially in Iran, Armenia, Azerbaijan, and Georgia, are very fond of playing Narde. In Georgia they play mainly the "short Narde", a slightly simplified version of ifranjiah. In Iran it is called "Takhte Nard". In Armenia and Azerbaidjan experienced players prefer to play "long Narde", which requires more skill and even "knowledge" of some non-written strategic methods. As in 'mahbusa' all 15 checkers of a player are initially positioned on his 24-point, but there is a principal difference. One is forbidden to put his checker at a point occupied by opponent's checker. So there is no "hitting" and no "imprisonment" in the long Narde game. The main strategy is to secure playing "big pairs" by one's own checkers and prevent as much as possible doing the same by the opponent.

## **Other variants**

### **Brädspe**

A Swedish variant of *backgammon*, also called *Swedish Tables* in English.

The main difference compared to other backgammon variants is the method of winning. You can win by bearing off, but there are also several other ways to win, such as to arrange all your checkers in certain pre-determined patterns or by hitting so many checkers that your opponent can not bring them in again.

Brädspe is played without the doubling cube.

### **Gul Bara**

Gul bara is also called 'Rosespring Backgammon' or 'Crazy Narde' and mistakenly called 'Gul Bahar' in some Arab countries.

### **Old English Rule**

This rule limits the number of checkers to a maximum of five on each point, thus restricting some moves that might otherwise be made. This variation of backgammon is popular in England (as well as other regions), and is viewed as making the gameplay more interesting.

### **Runte Rule**

The Runte Rule allows the player to move his checkers both backwards and forwards within his own home board. The player cannot move the checker in such a way that it lands outside of his home board. The rule was created to increase the possibility of scoring backgammons and gammons, because it allows one to trap the opponent for longer.

## Tavli

In Greece, backgammon is called **tavli** (related to the word *tavla* 'board, table', and cognate to the Latin Tabula). It consists of three main styles, Portes, Plakoto and Fevga. Portes resembles the standard game, with minor variations: There is no doubling cube and backgammon counts as a gammon (called *diplo* - greek word for a double). Plakoto is very similar to mahbusa or Tapa, while Fevga is similar to Narde or the Turkish variant Moultezim. The three are normally played consecutively, one after another, in matches of three, five or seven points.

## Tabla

In Republic of Macedonia the game is called **tabla** (*B01;0*, meaning 'board, table'). It also consists of three main styles, very similar to the Greek tavli: *Tabla*, *Gjul Bara* and *Tapa*. They are played consecutively (in that order) in a match of five. The first game Tabla ("01;0) is the standard backgammon, with few differences: there are no doubling cubes and there is no backgammon (it's the same as gammon). Gjul Bara (C; 0@0) and Tapa ("0?0) are played the same way as described before. Gammon is called **mars** (0@A) and it's the only situation when a player can win 2 points with a single game. Mars is present in all three styles. When starting the match, each player rolls one die, to determine who will start. If it's a tie, the players roll again. But, unlike the regular backgammon, the already-rolled dice are disregarded and the player that won the first turn, rolls both dice to begin. In the next game in the match, the player that won the previous has the first turn.

## LongGammon

LongGammon is a variant of backgammon, the sole difference being that all fifteen of the players' checkers start on their opponent's one-point. All other rules of the game are the same as regular backgammon.

## Nackgammon

A variation invented by Nack Ballard. It differs from the regular game in its initial setup: each player starts with two checkers on their 24-point, two checkers on their 23-point, three

checkers on their 8-point, and five checkers on their 13-point and on their 6-point. This setup places more emphasis on positional play.

Nackgammon is played using the doubling cube and the Jacoby rule, so gammons and backgammons count only if the cube has been turned.

## **Computer backgammon**

The first strong computer opponent was BKG 9.8. It was programmed by Hans Berliner in the late 1970s on a PDP-10 as an experiment in evaluating board positions. Early versions of BKG played badly even against poor players, but Berliner noticed that the critical mistakes the program made were always at phase changes. He applied basic principles of fuzzy logic to smooth out the transition between phase changes, and by July 1979, BKG 9.8 was ready to play against then current world champion Luigi Villa. It won the match, 7-1, becoming the first computer program to defeat a world champion in any game, although this was mostly a matter of luck, as the computer happened to get better dice rolls than its opponent in that match.

Beginning in the late 1980s, creators of backgammon-playing software began to have even more success with a neural network approach. TD-Gammon, developed by Gerald Tesauro of IBM, was the first of these computer programs to play at or near the expert level. This program's neural network was trained using Temporal Difference learning applied to data generated from self-play.

This line of research has resulted in two modern commercial programs, Jellyfish and Snowie, the shareware BGBlitz (implemented in Java), and the free software GNU Backgammon, that play on a par with the best human players in the world. It is worth noting that without their associated "weights" tables which represent hours or even months of tedious neural net training, these programs play no better than a human child.

It is interesting to compare the development of backgammon software with that of chess software:

1. For backgammon, neural networks work better than any other methods so far. For chess, brute force searching, with sophisticated pruning and other refinements, works better than neural networks.
2. Every advance in the power of computer hardware has significantly improved the strength of chess programs. In contrast, additional computing power appears to improve the strength of backgammon software only marginally.
3. For both backgammon and chess, it is at present unclear whether the best computer or the best human is best overall. For most other games, one or the other is unambiguously stronger.

Real-time on-line play began with the First Internet Backgammon Server on July 19, 1992. This server is active to this day, remains free, and enjoys a strong international community of backgammon players. Several commercial websites also offer on-line real-time backgammon play

# Battle dice

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- 1 What it is
- 2 Purchasing
- 3 The Game
- 4 Marvel Set 1
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- 6 DC Set 1

## What it is

Marvel *battle dice* is a game that uses small figures, which are placed inside dice, and then rolled. There are currently 69 of these figures from the first Set, and can be purchased in battle booster packs, or the starter set.

## Purchasing

The figures can be purchased in booster packs (listed above), or in the starter sets. The booster packs contain 3 random battle figures, and also comes with one battle dice. The starter set comes with 6 figures, two of which are secret figures. There are also battle dice launchers, which are large sized versions of the Fantastic Four's Thing (comics), and The Hulk.

## The Game

The game works by placing the figures (approximately 1" inch) in the battle dice, which have certain attributes by popping the dice open. When the dice are rolled, the player with the lower dice roll goes first. They select an attribute on the character, and use them to battle the other figure(s). Then the attributes take place, and so on and so forth, and the player with a certain roll wins, etc. Currently, there are 23 different dice. The attributes are: Intelligence, Strength, Speed, Durability, Energy, and Fighting Skills. Attributes are measured on a 0-6 scale, 6 being the highest. Characters are ranked points; in most tournaments teams cannot exceed 30 points making figures like Dark Phoenix too expensive to use. A comprehensive explanation can be found at any of the first two links in the links section.

## Marvel Set 1



In January Playmates released the first set consisting such characters as: Captain America, Spider-Man, Doctor Octopus, Professor X, Psylocke, Dark Phoenix, Apocalypse, Cyclops, Sentinel, Magneto etc. There are also "Clear" forms of the characters that "re-arrange" their abilities. Three characters were left out of production and are currently tournament prizes: She-Hulk, Silver Surfer, and Red Skull. The only other promotional characters from Set 1 are Stealth Wolverine and Spider-Man.

## **Marvel Set 2**

In July Playmates will release the second series. This set includes the popular Galactus, Phoenix, Storm, Pyro, Scarlet Spider, Vision, Juggernaut, Omega Red, Scarlet Witch, Electro, Green Goblin, Kingpin, etc.

## **DC Set 1**

The first DC Set will be released in the Fall and includes characters like Starfire and Superman.

Categories: Dice games | Dice

## **Bau cua ca cop**

*Bau cua ca cop* is a Vietnamese gambling game using three dice. The six sides of the dice, instead of showing numbers one through six, have pictures of a fish, prawn, crab, rooster, calabash gourd and stag. Players place wagers on a board, betting on which pictures will appear. (The game is similar to the English dice game Crown and anchor).

Bau cua ca cop is often played at Tet (Vietnamese New Year).

Categories: Dice games

## **Big and small**

*Big and small* is a dice game of pure luck. It is a popular gambling game in China and is still offered in some casinos in Asia, notably in Macau. A variation is the common casino game Sic bo.

## Rules

The game is played with three dice. Traditionally, the dice are placed on a plate, covered with an inverted bowl and the plate and bowl are then shaken together. After gamblers place their bets, the banker uncovers the bowl, pays the winners and the game continues on to the next round. In modern casinos the dice are shaken mechanically, and the outcome is keyed into a computer which automatically lights up the winning zones on the table.

The game is called "Big and Small" because the main bets are on "high points" (big) or "low points" (small). Other bets are also offered:

Name of Bet	Winning Criterion	Dividend	Odds Occurrence	of House Advantage
<i>Big (')</i>	<b><i>Dice Total: 11 to 17</i></b>			
	<b>Player loses if "Alls"</b>	1 to 1	48.61%	2.78%
Small (j)	<b><i>Dice Total: 4 to 10</i></b>			
	<b>Player lose if "Alls"</b>	1 to 1	48.61%	2.78%
All 1 (.)	All 1	1 to 180	0.46%	16.7%
All 2 (œ)	All 2	1 to 180	0.46%	16.7%
All 3 (.)	All 3	1 to 180	0.46%	16.7%
All 4 (Û)	All 4	1 to 180	0.46%	16.7%
All 5 (")	All 5	1 to 180	0.46%	16.7%
All 6 (m)	All 6	1 to 180	0.46%	16.7%
Any Alls (h j)	All x	1 to 30	2.78%	16.7%

This is a game in which no skill is required on the players' part, and the house always has an advantage.

Categories: Dice games

## Bunco

*Bunco* (also *Bunko* and *Bonko*) is a parlor game played in teams with three dice. A winning throw in Bunco is to throw three of a kind of a specified number.

Although most popular soon after its inception in the late 1800s, Bunco has seen a resurgence in recent years. Currently, it is played at parties and other social gatherings.

Categories: Dice games

## Button Men

*Button Men* is a dice game for two players, invented by James Ernest of Cheapass Games and first released in 1999.

Games are short, typically taking less than ten minutes to play. Each player is represented by a button of their choice. Buttons are metal or plastic discs, about 2–2.5 inches (about 5–6.5 centimeters) in diameter, with a pin on the back that can be used to fasten them to clothing. They bear the name and illustration of the combatant (the "Button Man") whose role the player is assuming. They also indicate the number, size, and skills (if any) of polyhedral dice to be used by the player.

### Contents

- 1 Background and history
- 2 Gameplay
  - 2.1 Die skills
- 3 Strategy and the meta-game

## Background and history

Button Men is a game designed for fan conventions and other public venues. It can be played almost anywhere on short notice (provided the dice are at hand), and games are quick to complete. Buttons are meant to be worn on clothing, bags, or other accessories, advertising that the wearer has a button to play with and is open to challenges. Buttons also frequently advertise something else, such as a company, a webcomic, or another game. The Sluggy Freelance set of buttons, for example, features characters from that comic, and the BRAWL set features characters from another Cheapass game. In 2000, Button Men Online won the Origins Awards for Best Abstract Board Game of 2000 and Best Graphic Presentation of a Board Game 1999 .

Button Men can easily be extended simply by creating more buttons. It has continued to be so extended since its inception; as of 2004, over 200 buttons have been printed. Many are by now out of print, though many others are still available, primarily via purchase from the Cheapass Games web site. Companies other than Cheapass must pay a licensing fee to use the Button Men artwork in distributing their own buttons.

Button Men Online, a website developed by Dana Huyler and officially endorsed by Cheapass Games, allows users to play games over the internet via a web-based interface with e-mailed notifications. Button Men Online features most of the printed buttons, an additional 250+ "buttons" that exist only on the site, and a random button generator. In 2003, Button Men Online won the Origins Award for Best Play-by-mail game of 2002.

## Gameplay

After selecting their buttons, players assemble their dice. Most buttons have five dice, but some have more or fewer, and in certain cases the number of dice may change over the course of the game. The size—that is, number of sides—of most dice is specified and unchangeable, but most buttons have at least one Swing or Option die, which means that the player has a choice of sizes to use for that die. Swing dice, represented by letters like variables in algebra, may have any size within a certain range of integers: for example, an X Swing die may have any whole number of sides between 4 and 20, including odd numbers. Option dice, represented by two numbers separated by a line or slash, give the player a choice of only two sizes: for example, an Option 8/12 die may have either 8 or 12 sides, but no other number. Die sizes typically range between 1 and 30, and any fair random number generator may stand in for a "die" of a non-standard size. For example, a two-sided die is easily simulated by a tossed coin, and a coin plus an eight-sided die can serve as a sixteen-sider: if the coin lands heads, add 0 to the value on the eight-sider; if tails, add 8.

Conceptually, small dice represent speed, and large dice represent strength.

Players select the size of their Swing and Option dice in secret, and reveal them after selection is complete. Then all dice are rolled and arranged in size order in front of their owners. The player with the die showing the lowest value takes the first turn. In the case of a tie for the lowest value, the next lowest value is considered. If all dice are tied, the round ends in a draw, and is replayed. The right to take the first turn is called initiative. Some dice have special skills that change their effect on initiative.

Starting with the player who gained initiative, players take turns using their own dice to attack and capture their opponent's dice. Most dice can participate in either of the two basic types of attack:

- *Power:* In a power attack, one attacking die captures an opposing die that is showing a value lower than or equal to its own.
- *Skill:* In a skill attack, one or more attacking dice capture an opposing die that is showing a value equal to the sum of their values.

After an attack is made, the captured die is added to the capturing player's score pile. All dice that participated in the attack are rerolled. The player's turn ends, and his opponent's begins.

A player may not pass his turn unless he is unable to make a legal attack. When both players pass consecutively (which usually, but not always, happens because one player is out of dice), the round ends and scores are counted.

Each player scores the size, in points, of each captured die in his score pile, plus half the size of each of his dice that remained uncaptured (some die skills can alter this total). The player with the higher total wins the round. Usually it is the case that the player who captured more dice wins the round. However, when there is a large difference between the number of die sides each player owns, it may be possible for one player to lose all of his dice and still win the round.

Between rounds, players may, if they wish, change the size of their Swing and Option dice to any other size in the allowed range. In tournament play, only the losing player may do so. The first player to win three rounds wins the game.

## Die skills

Dice in Button Men can be assigned one or more of over 30 official and unofficial die skills, which may augment, reduce, or simply alter their abilities. Usually, die skills are assigned only to some of the dice on a button, so that the player can only use those skills while those dice remain in play. In a small number of cases, however, special skills (other than die skills) are assigned to a button rather than to its dice, so that its player can always use them.

Some common die skills and their meanings are:

- *Focus*: At the beginning of each round, the player who does not win initiative may, at his option, reduce the values showing on one or more of his Focus dice, if and only if he gains the initiative by so doing. His opponent may then respond by doing the same with her own Focus dice. The players continue "focusing" in this manner until one of them is unable to or chooses not to. Any Focus dice that were "turned down" as part of a successful bid for initiative are considered "dizzy" and may not participate in an attack during their owner's first turn.
- *Shadow*: Shadow dice may not make power attacks. Instead, they make shadow attacks, in which they capture any die showing a value between their current value and their maximum value, inclusive. For example, a ten-sided Shadow die showing a value of 8 could capture any die showing an 8, 9, or 10. Shadow dice can participate in skill attacks as normal.
- *Poison*: Poison dice attack normally but are scored differently. At the end of the round, instead of adding the number of sides of a Poison die to their scores, players subtract half the number of sides on any Poison die they captured, and the full number of sides on any Poison die of their own that remained uncaptured.
- *Stinger*: When making a skill attack, Stinger dice may be counted as if they were showing any number between 1 and the value they are actually showing. Thus, a normal six-sided die showing 3 and an eight-sided Stinger die showing 6 could combine to capture any die showing a number between 4 and 9, inclusive. As a trade-off, Stinger dice are not considered when determining initiative.

Dice can have more than one skill assigned to them, but some skills contradict one another. For example, a Focus Stinger die could never be used for its Focus skill, since its owner could never gain initiative by reducing the value showing on a die that does not count towards initiative.

## Strategy and the meta-game

Not all Button Men are evenly matched against one another. Though designers attempt to balance a Button Man's strengths and weaknesses, necessarily it happens that some arrangements of die sizes and skills are more likely to win games than others. Buttons that are exceptionally powerful (or that have problematic special abilities) may be declared not to be "tournament legal" by Cheapass Games, meaning that tournament organizers should consider disallowing those buttons. Most illegal buttons are rare or promotional ones with unusual die skills or special rules. All buttons that have not been licensed from Cheapass (including all of those that exist only on the Button Men Online web site) are illegal by default.

Button Men Online maintains statistics on the hundreds of thousands of games that have been played on the site. Among tournament legal Button Men, win percentages range from the mid-teens to the high sixties.

Therefore, part of the strategy of the game is to begin by selecting a relatively powerful button. However, buttons may be stronger or weaker when playing against other buttons with certain characteristics. For example, a button with small Poison dice might be powerful in general because it has fewer dice worth positive points for its opponent to capture. However, a button with large Shadow dice might be powerful against that button specifically because it can allow the round to end with the Poison and Shadow dice unable to capture each other, and therefore still counted towards their owners' scores.

Swing and Option dice help to offset buttons' natural strengths and weaknesses by ensuring that a button's number of sides need not be exactly the same from one round to the next. Tournament organizers may also choose to minimize the importance of the "meta-game" of button selection (usually with the idea of shifting importance to the players' skill) by somehow penalizing stronger buttons, or by enforcing random button selection.

However, chance plays a large role in Button Men; it is always possible for a 20-sided die to roll a 1 at an inopportune time. Among tournament legal buttons, at least, no match-up is impossible for either side to win. Inevitably it happens that a weaker Button Man or a less skilled player will claim some improbable victories due to lucky die rolls. This effect is offset somewhat, however, by the rule that a player must win three rounds to win a game.

Articles on Cheapass' "official fan site" discuss questions of strategy such as choosing the optimal size for Swing or Option dice (including a mathematical formula for how many sides the "larger" Button Man must keep in order to win), and determining which capture to make to have the best chance of protecting one's remaining dice.

Categories: Dice games

## Cee-lo

*Cee-lo* (sometimes spelled *cilo*, *celo*, *c-lo*, or *cee-low*) is a game of chance played with three six-sided dice. The game is stereotypically played in urban settings such as alleys or stoops.

Each game involves two or more players. A bet amount is decided upon and each player puts that amount in the pile or pot. Each person then goes on to roll all three dice at once, and continues to do so until a recognized combination, or number, is rolled.

The most common combination is two of the same number, and a third different number. The value of the roll is the third unique number. The objective is to have the highest valued roll to win. However, there are some special combinations:

1 2 3

The lowest possible roll.

4 5 6

The highest possible roll.

"Trips"

If you roll three of the same number, this is known as rolling "trips". All other players must now roll a higher number with trips or 4 5 6 to win.

If two or more players roll the same highest combination, a new round of the game begins between those players. Sometimes each one deposits twice as much money into the pot as he did in the previous round. The rolling process again occurs, with only those left in the game rolling. The game ends once there is a single winner in a round, with all the money in the pot going to them.

## Common variations

- A common practice is that if a player wins with trips or 456, all players must pay double the original bet.
- If a player rolls the dice 5 times without getting a combination, they are out.

Cee-lo is sometimes played that if a 456 is rolled then it is an automatic win and no one else can even tie it.

Likewise, a 123 would be an automatic loss and the person who rolled it would be automatically out. This loss includes for all "pushes" that may occur in a hand.

In the West Coast Version, besides a 456, the highest pair wins and the 3rd number is of no meaning. 123 is meaningless, but roll "trips" and you're out.

In a two player game if you roll the dice and if the odd dice is a "1" you "aced out" ...lost automatically. If the odd dice is a "6" ... "head crack" ... you win automatically...

Categories: Dice games

## Chingona

*Chingona* is a dice game played by two or more players, using five poker dice and a cup. It is usually played to decide who is to pay for the next round of drinks, but betting can also be involved.

Categories: Dice games

## Cho-han bakuchi

*Cho-Han Bakuchi* (or *Cho Ka Han Ka*, or simply *Cho-Han*) is a traditional Japanese gambling game using dice.

The game uses two standard six-sided dice, which are shaken in a bamboo cup or bowl by a dealer. The cup is then overturned onto the floor. Players then place their wagers on whether the sum total of numbers showing on the two dice will be "Cho" (even) or "Han" (odd). The dealer then removes the cup, displaying the dice. The winners collect their money.

Depending on the situation, the dealer will sometimes act as the house, collecting all losing bets. But more often, the players will bet against each other (this requires an equal number of players betting on odd and even) and the house will collect a set percentage off winning bets.

The game was a mainstay of the bakuto, itinerant gamblers in old Japan, and is still played by the modern yakuza. In a traditional Cho-Han setting, players sit on a tatami floor. The dealer sits in the formal seiza position and is often shirtless (to prevent accusations of cheating), exposing his elaborate tattoos.

Many Japanese films, especially chambara and yakuza movies, have Cho-Han scenes. The character Zatoichi is a noted fan of the game.

Categories: Dice games

## Chuck-a-luck

More of a carnival game than a true casino game, *Chuck-a-luck* — sometimes called *birdcage* for the wireframe cage used in the game — is a simple gambling game. The cage, shaped somewhat like an hourglass with a pivot at the middle, contains three dice. Players have the option of betting on the numbers 1 through 6. If the number appears on one die, the bettor is paid even money. Should it appear on two dice, the winner is paid at 2-1 odds. If the number appears on all three dice, the payoff is at 10-1 odds. Some games also have a bet which pays 30-1 for "any triple," when all three dice match. The operator may also offer a "big" or "small" bet which pays even money when the total on the dice is 10 through 17 for the "big" bet, and 4 through 10 for the small; both bets lose when a triple is rolled.

An elementary examination will find that the game's expected value (barring loaded dice, which are common), is worse than that of most other table games, often much worse.

The game is sometimes used as a fundraiser for charity, but the odds of coming away with more money than originally put in are quite small.

A version of the Big Six wheel is loosely based on chuck-a-luck, with various combinations of three dice appearing in 54 slots on a spinning wheel. Because of the distribution of the combinations, the house advantage for this wheel is even worse than chuck-a-luck.

Categories: Dice games

## Cootie



*Cootie* can refer to the following:

- Cootie was originally British naval slang for a head louse. It came into common use by the British military during World War I. The word may have originated from the Malayan kutu, meaning dog tick, but kutu is also used in many Pacific Island languages to mean head lice.
- Cootie is today American children's slang for "germs", lice or a vague notion of contagious personal contamination.
- Cootie is also the name of a table game, the object of which is to be the first player to complete a comic model of an insect from the supplied plastic parts, as determined by the roll of a die. The patent is held by Milton Bradley.

Categories: Dice games

## Cosmic Wimpout

*Cosmic Wimpout* is a deceptively simple, user extensible game combining chance and skill. The game promotes wisdom, fun, and fellowship; and many Cosmic Wimpout afficianados believe that long term playing of the game can eventually unlock the secrets of the universe.

It is played with 5 six-sided cubes displaying assorted arcane symbols. An optional combination score board and rolling surface, in the form of a piece of cloth or felt available in various colors and designs, may also be used. Players supply their own game piece for score keeping.

The origins of the game are shrowded in the mists of time, but it continues to be manufactured and distributed by a small group of friends. Possibly based on Pig and/or Zonk, Cosmic Wimpout was introduced in the 1970s and has often been associated with the Berkeley, Grateful Dead, and other free-form subcultures.

The annual tournament currently takes place at the Green River Festival in Greenfield, Massachusetts.

Categories: Dice games

## Craps

*Craps* (previously known as crabs) is a casino dice game, which is especially popular in the USA. Craps is a simplification of the Old English game hazard. Players wager money against the casino on the outcome of one roll, or of a series of rolls of two dice.

Craps can also be played in less formal settings and is said to be popular among soldiers. In such situations side bets are less frequent, with one or several participants covering or "fading" bets against the dice.

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## The basic game

The players take turns rolling the dice, and they all bet on the same roll, regardless of who is rolling. The player rolling the dice is called the shooter. The first roll of a new round is called the "come-out roll." All bets are based on the total of both dice together, or on the specific combination of the roll.

Craps features a plethora of bets, but the most fundamental is the "pass line" wager, which nearly all players make. On a come-out roll, the pass line bettors win when either a 7 or 11 is rolled. A 2, 3, or 12 loses, and is called "craps". When any other number (4, 5, 6, 8, 9, or 10) is rolled it's called the *point*. Once a point has been set, the pass-line bettor wins if the point is rolled again, and loses if a 7 is rolled first ("seven-out"). After a seven-out the dice pass to the next shooter for a new come-out roll.

The opposite of a pass line bet is the "don't pass" bet, which wins on a come-out roll of 2 or 3, loses on 7 or 11, ties on 12, and goes to the point round when any other number is rolled. In the point round the don't pass bet wins if a 7 is rolled and loses if the point is rolled. People who bet on the don't pass are called wrong bettors, while those who bet on the pass are called right bettors, only because most craps players make the pass line bet instead of the don't pass bet.

A casino craps table is run by four casino employees: a *boxman* who guards the chips, supervises the dealers and handles coloring out players; two *base dealers* who stand to either side of the boxman and collect and pay bets; and a *stickman* who stands directly across the table from the boxman and announces the results of each roll and then collects the dice with an elongated wooden stick. He is also in charge of managing the bets made on the center of the table (hardways, yo, horn, etc). For clarity, the number 11 is referred to as "yo" so as not to be confused with the number 7.

A new shooter, who must bet the table minimum on either the *pass line* or the *don't pass line* to play, is presented five dice by the *stickman* and picks two.

The dealers will usually insist that the shooter roll with one hand and that the dice bounce off the wall surrounding the table. These requirements are meant to retard cheating attempts by players switching the dice or making a "controlled shot." If a die leaves the table, the shooter will usually be asked to select another die from the remaining three but can request using the same die if it passes the boxman's inspection. This requirement is used in an effort to reduce cheating the game by players substituting loaded dice for the regulation dice.

## Types of craps bets

The fundamental bet in craps is the *pass line* bet, in which one bets that the dice will *pass* (that is, roll the point number before rolling a 7). A pass line bet is also won if the come-out roll is a 7 or 11. The following discussion assumes that the shooter, as is usually the case, is betting on the pass line.

If a 4,5,6,8,9, or 10 is thrown on the come-out roll (i.e., if a point is set), most casinos allow pass line bettors to take *odds* by placing from one to five times (and at some casinos, up to 100 times) the pass line bet behind the line. This additional bet wins if the point is rolled again before a 7 is rolled (the point is made) and pays at the true odds, 2-to-1 if 4 or 10 is the point, 3-to-2 if 5 or 9 is the point, and 6-to-5 if 6 or 8 is the point. While the house has a small (1.4%) advantage on pass line bets, the house has no advantage at all on odds bets. Therefore, taking the maximum odds (which vary by casino) can lower the house percentage for any given bet down to as low as 0.5%.

Odds bets in craps are one of the few bets offered at a casino that are completely free of any house advantage. Another such bet is the "double-up" option offered to the player in some forms of video poker after winning a hand.

Let's see why that is. There are 36 possible permutations (ways to roll a pair of 6-sided dice):

1-1 = 1 way to make a 2 1-2 2-1 = 2 ways to make a 3 1-3 2-2 3-1 = 3 ways to make a 4, true odds pays 2-1 1-4 2-3 3-2 4-1 = 4 ways to make a 5, true odds pays 3-2 1-5 2-4 3-3 4-2 5-1 = 5 ways to make a 6, true odds pays 6-5 1-6 2-5 3-4 4-3 5-2 6-1 = 6 ways to make a 7 2-6 3-5 4-4 5-3 6-2 = 5 ways to make an 8, true odds pays 6-5 3-6 4-5 5-4 6-3 = 4 ways to make a 9, true odds pays 3-2 4-6 5-5 6-4 = 3 ways to make a 10, true odds pays 2-1 5-6 6-5 = 2 ways to make an 11 6-6 = 1 way to make a 12

There are a total of 36 possible combinations. So on the come-out roll there are 8 ways to win, 4 ways to lose and (36-12=) 24 ways to start a point.

The odds of making the point are the ratio of the number of ways to make a 7 to the number of ways to make the point. For example, there are five ways to make a 6 or 8, so the odds of making a point of 6 or 8 are 6-5. Therefore an odds bet of \$5 on 6 or 8 pays out \$6.

Many experienced craps players only make pass line and odds bets since the odds are much more favorable to the player than any other bets in craps, and in fact most casino

games. The pass line and odds bet is one of the best wagers you can make in gambling, and a lot of the excitement and fortunes of craps can be experienced with this simple bet.

The rules for the *come* wagers are the same as for the *pass* line except that they can only be made after the come-out roll. Effectively, they represent starting a new game using the same stream of numbers being generated by the existing (pass line) game.

Because of the *come* bet, if the shooter makes their point, a player can find themselves in the situation where they have a *come* bet with odds on it, and yet be rooting for the shooter to roll a 7 on their next come-out roll. Because of this, it is usual that odds bets on *come* wagers are presumed to be *not working*. That means that if the shooter rolls a 7 on the *come-out* roll, any players with active *come* bets lose their initial wager but will have their odds money returned to them, unless they tell the dealer that they want their odds *working*. Conversely, if the shooter rolls a number that matches an active come bet, the original bet is paid off at even money and the odds money is returned to the player (unless they told the dealer that they wanted their odds working, in which case they are paid at the true odds).

There is also a *don't come* box in which one can place bets that the dice will not pass on the next sequence starting with the immediate roll as a virtual come-out roll; even the shooter may bet that he or she will miss out. *Don't pass* and *don't come* bets are basically the opposite of *pass* and *come* bets; the player is betting that a 7 will be rolled before the point. On the come-out roll a 7 or an 11 is a loss, whereas a 2, 3, or 12 is a win. Casino craps layouts *bar* either 2 or 12 on the *don't pass* and *don't come* bets. This means that if 2 is barred and the shooter rolls a 2 on the come-out roll, the wager is a stand off and the player's money is returned.

When betting against the shooter, the bettor must put up the long side of the bet. Thus a *don't pass* bettor who bets \$10 when the point is a 4 could place an odds bet of \$20 behind the line. If the shooter rolls a 7 before achieving their point, the bettor would receive \$10 for the *don't pass* bet plus \$10 for their odds bet. Even though the house advantage on the *don't pass* and *don't come* bets are almost identical to the *pass line* and *come* bets, for most players the disadvantage of putting up the long side of the bet makes the *don't pass* line less desirable. Additionally, many craps players consider *don't pass* and *don't come* bets to be in poor taste, or even "taboo".

## Proposition bets

*Note: Individual casinos may pay some of these bets at different odds than those listed below. The payoff odds listed are the most common throughout North American casinos. Actual odds, of course, do not vary.*

Proposition bets are generally located in the center of a craps table, and often pay off at high odds but with a significantly higher house advantage.

*One roll* bets that the shooter will make an 11, or "yo" (pays 15-1, actual odds 17-1); 3, or "ace-deuce" (15-1, actual 17-1); 2, or "snake eyes" (30-1, actual 35-1); and 12, "box cars" or "midnight" (30-1, actual 35-1). A "hi-lo" is a combination bet on 2 or 12, paying 15-1 (actual odds 17-1); the stickman places this bet on the line dividing the 2 and 12 bets.

Bets that a shooter will make a *hardway* number such as 4-4 (before throwing a 7 or an 8 the *easy way* such as 6-2 or 5-3). The *hard 4* (2-2) and *hard 10* (5-5) pay off at 7-1 odds

(actual odds 8-1), and the *hard 6* (3-3) and *hard 8* (4-4) pay off at 9-1 odds (actual odds 10-1).

The *Horn* is a bet that involves betting on 1 unit each for 2, 3, 11 and 12 at the same time for the next roll. The bet is actually four separate bets, and pays off depending on which number is actually rolled, minus three units for the other three losing bets. Most players do a "Horn High" bet which involves betting an additional \$1 on one of the 4 choices, with the most frequent being a \$5 "horn high yo" bet (which means \$2 on the 11, \$1 each on 2, 3 & 12).

A *hop* bet is a bet on any combination of the dice on the next roll. For example, hard 8 on the hop pays 30-1 (actual odds 35-1) if two fours appear on the dice on the next roll only. "Easy" combinations may also be bet, such as a 3-5 or 4-6, paying off at 15-1 odds (actual odds 17-1). On most craps tables, hop bets do not have a designated space on the layout; instead, they are kept in front of the boxman, often with a "hop" marker placed on top of the chips.

*Craps* is a bet that the shooter will roll 2, 3 or 12 on the next roll. The true odds are 8-1 and the casino pays 7-1.

*C & E* is actually two bets. A player is betting one unit on craps and another unit on 11. One of the two bets will always lose, and the other will pay off as above.

*Any Seven* is a bet that the shooter will roll a seven on the next roll. The true odds are 5-1 and the casino pays 4-1. This bet is also nicknamed "Big Red," since the "7" on its betting space on the layout is usually large and red.

A *whirl* or *world* bet is a five-unit bet that is a combination of a horn and any-seven bet. The bet is effectively a push if a 7 rolls, since the 4-1 payoff on the any-seven bet is offset by the other four losing bets.

The *field* bet is a wager that one of the numbers 2, 3, 4, 9, 10, 11, or 12 will appear on the next roll of the dice. This bet pays 2-1 on the 2 or 12 and even money on the others; many casinos will instead pay 3-1 on the 2 or 12. The house advantage is slightly more than 5%, reduced to 2.7% when the 2 or 12 pays 3-1. This bet is located in a box between the don't pass line and the come box. Unlike the other proposition bets which are handled by the dealers or stickman, the field bet is placed directly by the player.

The *Big 6* and *Big 8* wagers are considered by craps players as *sucker bets* because they pay even money while a player can bet on the same proposition (a 6 will be rolled before a 7) by placing the 6 or the 8, which pays 7-6 (true odds are 6-5). Veteran craps players avoid these bets, and some casinos (particularly those in Atlantic City) do not even offer them. These are located in the corners behind the pass line, and bets are placed directly by players.

Most of these bets are very costly and disadvantageous to the player, because the house percentage on these bets can be 11.1% and up. Knowledgeable craps players often restrict their action to either the pass line or don't pass line with full odds. More aggressive players can also bet on the Come/Don't Come with full odds which is statistically identical to the pass/don't pass bet.

## **Place, buy and lay bets**

Players can *place* or *buy* individual *numbers* (4, 5, 6, 8, 9, 10) by placing their wager in the *come* area and telling the dealer, "place the 6" or "buy the 8". Both are bets that the number will be rolled before a 7. Place bets are paid at odds slightly worse than true odds for the 6 or 8, but significantly worse for the 4, 5, 9 or 10.

Buying the number results in a payoff at the true odds, but requires a 5% commission to be paid to the casino. Traditionally, the buy bet commission is paid no matter what, but in recent years a number of casinos have changed their policy to charge the commission only when the buy bet wins. This change significantly reduces the house advantage, especially on the 4 and 10, where the effective advantage is reduced by two-thirds because the bet wins one third of the time; this reduces the house advantage to 1.67%, making the buy-4 or buy-10 one of the game's better bets. This policy is in effect at most casinos in Mississippi, and an increasing number in Las Vegas.

The commission is paid at the rate of a \$1 chip for every \$20 wagered, but casinos usually charge only \$1 for a \$25 green-chip bet, or \$2 for \$50 (two green chips), reducing the house advantage a bit more. Where commission is charged only on wins, the commission is sometimes deducted from the winning payoff — a winning \$25 buy bet on the 10 would pay \$49, for instance.

A *lay* bet is the opposite of a buy bet, where a player bets on a 7 to roll before the number that is "laid." Bets are made in increments of \$24 when laying the 6 or 8, \$30 when laying the 5 or 9, and \$40 when laying the 4 or 10; a \$1 commission is charged for each of these increments. Again, the tradition is to charge this commission win or lose, but casinos may opt to charge it only when the bet wins; this is less of an advantage for the player, since the bet wins more often than it loses. Most lay bets are on the 4 or 10.

Number	Place Payoff	Buy Payoff	Lay Payoff
6 or 8	7-6	6-5	5-6
5 or 9	7-5	3-2	2-3
4 or 10	9-5	2-1	1-2

## Examples of basic play

- Example 1:

Let's say you put \$10 on the pass line. On your come-out roll you get an 11, so you win \$10. The game now starts over, with a new come-out roll. You roll a 9, which becomes the point. You decide to bet \$10 on the come line before your next roll. On your next roll you get a 6, which is now the point you need to hit in order to win your \$10 come bet. Your next roll is a 9, which is the point you needed to hit to win your pass line bet, meaning you just won another \$10. You bet \$10 on the pass line again, and your new come-out roll is a 7. You win \$10 for your pass line bet, but lost the \$10 you had previously bet on the come line.

- Example 2:

This time you decide to bet on the don't pass line. You roll a 4, which becomes the point. You bet \$10 on the don't come line, and your next roll is a 7. You lose your don't come bet, and win your don't pass bet, so you just broke even. Since you just sevened-out, the player to your left becomes the new shooter.

## Etiquette

Besides the rules of the actual game, certain unwritten rules of etiquette exist while playing craps and are expected to be followed. Many consider these guidelines as important as the actual rules themselves. New players should familiarize themselves with them before approaching a craps table.

## Rules related to casino security

- Players are not supposed to handle the dice with more than one hand, pass them directly from hand to hand, nor take the dice past the edge of the table. The only way to change hands when throwing dice, if permitted at all, is to set the dice on the table, let go, then take them with the other hand.
- When throwing the dice, the player is expected to hit the farthest wall at the opposite end of the table. The dice may not be slid across the table and must be tossed. They may not be thrown higher than the eye level of the dealers.
- The dice must not land in the boxman's bank or on any of the dealers' working stacks of money.
- When either of the dice land on chips or markers not in the boxman's bank or the dealers' working stacks, the number that would be on top if the object the die is leaning on were removed, is the number that is used to make the call.
- If a die hits a player or dealer and rolls back onto the table, the roll counts as long as the person being hit did not interfere with the die.
- In most cases the shooter may "set" the dice to a particular configuration, but if they do, they must be quick about it so as not to delay the game. Some casinos have "no setting" rules, and the player must throw the dice as given to him.
- Do not try to place money in the dealer's hand or expect the dealers to hand you chips. Dealers are not allowed to touch the players at any time. Players are expected to place cash on the layout and announce "change only" or a specific bet and amount. The dealer will then place chips on the layout or in front of the players.
- Many crap table layouts state "NO CALL BETS". This means a player is not allowed to call out a bet without having at least the bet amount of chips on the table. If the chips exceed the bet, for example a \$100 chip is placed and bets called out of "\$25 on five and nine", the dealer will say "it's a bet" and return \$50 change to the player. The dealer doesn't have to actually place the bet in the proper place on the table to constitute a valid bet. This method is consistent with the fast action of the game, allowing a player to make a last-second bet while the dice are about to be thrown. The NO CALL BET rule may exist to prevent confusion on the amount bet, possibly going back to the days of 25 cent tables.

For example "three fifty" could mean \$3.50 or \$350. If the dealer is not clear about the intention of the player he may state "no bet" and push the chips back to the player.

### **Commonly observed etiquette**

- When offered the dice to shoot, a player may pass the dice to the next player without fear of offending anyone; however, keep in mind that at least one player must always be a "shooter" betting on either the pass line or don't pass line for the game to continue.
- Players are encouraged to tip the dealers, especially if they are winning. The most common way to tip is simply to toss chips onto the table and say "for the boys." (This is considered acceptable even though dealers often are women). Another method is to place a bet next to your bet and call out "dealers." A "two-way" bet is one that is part for the player and part for the dealers. Usually, the dealers' bet is smaller than the player's bet, but it is appreciated. The part of the bet for the dealer is called a "toke" bet; this is from the \$1 slot machine coins or tokens that are sometimes used to place bets for the dealers in a casino. Most casinos require the dealers to pick up their winning bets, including the original tip, rather than "let it ride" as the player may choose to do.
- After the come-out roll, it is considered bad luck to say the word "seven." This may offend other players. A common "nickname" for this number is "Big Red".
  - It is considered bad luck to change dice in the middle of a roll.
  - Center bets are made by tossing chips to the center of the table and calling out the intended bet; the stickman will then place the chips correctly for you.
  - It is not considered rude to correct a dealer that you feel has made an error. Mistakes happen and disputes are often resolved to the player's benefit, mainly in the interest of keeping their business.
  - It is considered rude to "late bet," or make wagers while the dice are no longer in the middle of the table. While entirely permissible, excessive late betting will generally garner a warning.
  - Food, drinks, and other items should remain off the chip rail.
  - Players feel it is bad luck for the shooter to leave the table after a successful come-out roll.
  - It is considered very bad etiquette to allow the dice to hit your hands. More often than you would imagine, this seems to result in the shooter "sevening out" and the offender noticing glaring looks and mumbling curses from the other players. This phenomenon is sometimes referred to when the stickman will say "hands high, let 'em fly".



## Odds

The rules vary slightly from one casino to another, but the expected value of several bets is only slightly negative (the most favorable bets with the most favorable rules offer a house advantage of as little as 0.18%). All bets have a negative expectation except for the "free odds" bet that the player is allowed to make after a point is established on a flat (line) bet (this bet has a long-term expected value of 0). However, the "free odds" bet cannot be made independently, so the expected value of the entire bet, including odds, is still negative. Since there is no correlation between die rolls, there is no possible long-term winning strategy. While experienced blackjack players who learn to count cards can gain a small mathematical advantage over extended playing sessions by diligent study, there is no comparable strategy for craps.

Occasionally, players win several bets in a row; such players are said to be "on a roll." Those who increase their bets during a winning series can rapidly win substantial sums. On the other hand, money can be lost back just as quickly, as there is no statistical likelihood of a "hot streak" continuing for any given duration. To counter this, experienced players take full advantage of "free odds" -- bets on which there is zero house advantage. Maximizing the size of your odds bet in relation to your line bet will minimize but never eliminate the house edge. Many casinos have limitation on how large the odds bet can be in relation to the flat bet, with single, double, and five times odds common. Some casinos offer 3-4-5 odds, referring to the maximum multiple of the line bet a player can place in odds for the points of 4 and 10, 5 and 9, and 6 and 8, respectively. During promotional periods, a casino may even offer 100x odds bets, which renders the house edge to almost nothing but dramatically increases volatility. Horseshoe Casino founder Benny Binion once quipped that if every player took the 100x odds, the house "wouldn't be able to keep the lights on," referring to the overhead required to run casino games.

The only casino currently in Las Vegas to offer 100x odds is the Casino Royale located next to Harrah's on the strip. The Stratosphere offers 10x odds and most of the other casinos such as MGM and Bellagio offer 3x4x5. Some casinos such as the Riviera, Orleans and Gold Coast offer 2x odds which is considered an anathema to craps players, in equal footing with 6:5 payouts on single-deck blackjack. Most downtown casinos offer 5x (Binions) or 10x odds (Plaza and Main Street Station, with the Golden Nugget offering the unusual 6x8x10 odds), while a handful of downtown casinos offer the horrible 2x odds (Sam Boyd's Fremont).

There are numerous middle market casinos whose income from gaming is negligible due to minimal chip size, and whose business model focuses on generating revenue primarily through the sale of alcohol. At such institutions, craps will often be rigged mildly in favor of guests, allowing the house to serve drinks to the large number of onlookers a winning table generates. Low limit Craps is also known to be used as a loss leader via the same odds to give the impression that a casino which derives its profits from gambling (almost all in Las Vegas) is full of winners and fun place to be, causing guests to play other, house favored games.

## Optimal Betting / Bad Bets

One subtlety of craps is that there is a huge variety in the house advantage on the many bets available on the craps layout. Of course the house is guaranteed to win in the long run, but by poor selection of bets, the house can win the player's money many, many times faster. For example,

- A player betting the pass line or come line at \$10 per bet, 50 bets per hour, will lose on average \$141 over 20 hours of gambling on a gaming trip.
- A player placing the 4 and 10 at the same rates will lose on average \$667 over the same period.
- A player betting the "any seven" bet at the same rate will lose on average \$1,667 over the same period.

The house percentage advantage is an indication of the expected loss per total amount bet. Note that the total bet amount also drives expected loss, so betting the table minimum will give the slowest rate of average loss. While odds bets lower the house percentage, they do so by increasing the total amount bet. Thus, given a fixed minimum pass line bet, the decision whether to make the odds bet or not does not affect the average dollar loss per game. It does, however, increase the variance, which improves the chance (though still under 50/50) that the player will be net ahead after a finite amount of play, as well as increasing the chance of larger losses or larger wins.

The table below gives house advantage of various bets, as well as expected loss over a typical gaming trip (e.g. 50 bets per hour for 5 hours per day over 4 days = 1000 bets)

Type of bet	House advantage	Expected loss per 1000 bets of \$10
Pass line, no odds	1.41%	\$141.00
Come line, no odds	1.41%	\$141.00
Don't pass	1.36%	\$136.00
Don't come	1.36%	\$136.00
Place 6 or 8	1.52%	\$152.00
Buy 4 or 10, commission paid on wins only	1.67%	\$167.00
Field Bet with 3-1 odds paid on either 2 or 12	2.78%	\$278.00
Place 5 or 9	4.00%	\$400.00
Place 4 or 10	6.67%	\$667.00
Buy/Lay 4, 5, 6, 8, 9 or 10	5.00%	\$500.00
Field Bet	5.56%	\$556.00
Big 6 or Big 8	9.09%	\$909.00
Hard 6 or 8	9.09%	\$909.00
Hard 4 or 10	11.11%	\$1111.00
Any craps	11.11%	\$1111.00
Eleven (Yo)	11.11%	\$1111.00
Any Seven	16.67%	\$1667.00

In summary, the pass/don't line, come/don't line, place 6, place 8, buy 4 and buy 10 (only when commission is charged only on wins) are the "good" bets, and all other "bad" bets will lose money between 3 and 12 times faster, on average. The Any Seven bet, at 16.7% house advantage, may have the dubious honor of being the worst bet in the entire casino. Many players like to place numbers, but only the 6 and 8 are good bets. The player can work "through" the come line to get money onto the other point numbers at much more favorable returns for the player. While buying the 4 or 10 is better than placing it, either way is a bad bet, except in casinos with unusual rules where commission is paid on wins only.

## **Systems**

### **Martingale System**

No betting system can consistently beat casino games of pure chance such as craps, but that does not stop hopeful gamblers believing in them. One of the best known systems is the Martingale in which the player starts by betting \$1 and doubles his bet whenever he loses. Upon winning, he starts over at \$1. The idea is to realize a net win of \$1 after every eventual win. This system fails because the player will either run out of money after having to double his bet several times in a row after a streak of losing bets, or he will be unable to bet the amount dictated by the system because it would exceed the maximum bet allowed by the casino.

### **Gambler's fallacy**

Other systems depend on the gambler's fallacy, which in craps terms is the belief that past die rolls influence the probabilities of future die rolls. For example, the gambler's fallacy indicates that a craps player should bet on 11 if an 11 has not appeared in the last 20 rolls. In reality, each roll of the dice is an independent event, so the probability of rolling an 11 is exactly 1/18 on every roll, even if 11 has not come up in the last 100 rolls.

### **Parity Hedge System**

The parity hedge system is a hoax promulgated by Quatloos. Despite the fact that no such system exists (indeed, it is a mathematical impossibility), several gambling-related web sites have retold the 'parity hedge' story without attribution.

### **Dice setting**

Another approach is to "set" the dice, by throwing them in such a way that one or both will be more likely to show certain numbers. Unlike other systems, this one is not mathematically absurd, because if it were possible to alter the probabilities of each outcome, then winning systems could be devised. Nevertheless, the casinos take steps to prevent this. The dice are supposed to hit the back wall of the table, which disrupts the controlled spin. Some people offer to teach dice-setting skills, for a substantial fee, but there are no independent verifications that such methods can be successfully applied in a real casino. Frank Scoblete and Stanford Wong, authors of books that feature dice control techniques, believe that it is possible to alter the odds in the player's favor by dice control.

## Dice control

*Main article: Dice control*

Beyond simply dice setting, the theory of dice control or dice influencing purports that the actual throwing of the dice can be performed in a fashion controlled enough to alter the odds of the games in the player's favor. Whether it is possible for human beings to consistently exercise the precise physical control necessitated by the theory is not agreed upon universally. But there is a small but dedicated community of controlled shooters that maintain records and claim proof of dice influencing in casino conditions.

## Miscellaneous

Craps is such a popular game, its terminology is often found as colloquialisms in our language. The terms "on a roll", "crapshoot", "no dice", "crap out", "Snake Eyes" and "do it the hard way" all trace their origins to the game of craps.

As casinos restrict players' options in blackjack, craps is increasing in popularity, as it offers the best odds of all standard casino games based on pure chance.

In the classic crooner song "Luck Be a Lady Tonight," most famously sung by Frank Sinatra, the lyrics, "A lady doesn't wander all over the room / And blow on some other guys dice," make reference to point of craps etiquette. A lady blowing on the shooter's dice before he rolled was supposed to bring the shooter good luck. It was seen as inappropriate for a lady to blow on the dice of a man other than the one she was with at the casino. Of course, the verse can also be interpreted as a sexual euphemism.

The plot of the musical *Guys and Dolls*, which is the source of the above-mentioned song, revolves around some illegal games of craps, which "float" from location to location.

## See also

- Dice
- Box cars (slang)

**Categories:** Gambling | Dice games

## Crown and anchor

*Crown and Anchor* is a simple dice game, traditionally played for gambling purposes by sailors in the British Navy. It is still popular in the Channel Islands, but is strictly controlled and may only be played on certain days, such as the three annual agricultural shows.

Three special dice are used in Crown and Anchor. The dice are equal in size and shape to standard dice, but instead of one through six pips, they are marked with six symbols: crown, anchor, diamond, spade, club and heart. (The last four are the same symbols used on playing cards).

A canvas or felt mat is used for placing bets. A player can wager on one or more symbols. He then throws the three dice, and is paid by the banker accordingly. Even money is paid if one of his bets comes up, 2:1 if two, and 3:1 if three. Odds are clearly in favor of the banker.

### Variations

The rules of Crown and Anchor are the same as those of the American game chuck-a-luck. There is a similar Flemish version called Anker en Zon, or "Anchor and Sun", in which a sun symbol replaces the crown. The French version again uses the sun, and is called Ancre, Pique et Soleil. A version played in China and Vietnam is called Hoo Hey How or **Bau cua ca cop**.

Categories: Dice games

## Dice

A *die* (Old French *de*, from Latin *datum* "something given or played" ) is a small polyhedral object, usually cubical, used for generating random numbers. This makes dice suitable as gambling devices, especially for craps or sic bo, or used in recreational non-gambling games, especially board games.

Traditionally, a die is seldom seen alone, and is rather one of a pair of identical *dice* that are sized to be comfortably rolled or thrown, together, from a user's hand. The singular word "die" is therefore rare, and treating "dice" as interchangeably singular or plural is not uncommon (though still incorrect); the re-pluralized form "dices" is found sometimes. A traditional die is a cube (often with corners slightly rounded), marked on each of its six faces with a different number of circular patches or pits called *pips*. All of these pips have the same appearance within a pair, or larger set of dice, and are sized for ease of recognizing the pattern the pips on one face form. The design as a whole is aimed at each die providing one randomly determined integer, in the range from one to six, with each of those values being equally likely.

More generally, a variety of analogous devices are often described as dice, but necessarily in a context, or with a word or two preceding "die" or "dice", that avoids the assumption that traditional dice are intended. Such specialized dice may have cubical or other polyhedral shapes, with faces marked with various collections of symbols, and be used to produce other random results than one through six. There are also "loaded" or "crooked" dice (especially otherwise traditional ones), meant to produce skewed or even predictable results, for purposes of deception or amusement.

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## Ordinary dice

The common dice are small cubes 1 to 2 cm along an edge, whose faces are numbered from one to six (usually by patterns of dots called pips). It is traditional to assign pairs of numbers that total seven to opposite faces (it has been since at least classical antiquity); this implies that at one vertex the faces 1, 2 and 3 intersect. It leaves one other abstract design choice: the faces representing 1, 2 and 3 respectively can be placed in either clockwise or anti-clockwise order about this vertex.

Dice are thrown to provide (supposedly uniformly distributed) random numbers for gambling and other games and thus are a type of hardware random number generator. However, because the numbers on toy dice are marked with small indentations, slightly more material is removed from the higher numbered faces. This results in a small bias, and they do not provide fair (uniform) random numbers. The bias is reduced somewhat in the Japanese dice with its oversized single pip (pictured). Casino dice have markings that are flush with the surface and come very close to providing true uniformly distributed random numbers.

Dice are thrown, singly or in groups, from the hand or from a cup or box designed for the purpose, onto a flat surface. The face of each die that is uppermost when it comes to rest provides the value of the throw. A typical dice game today is craps, wherein two dice are thrown at a time, and wagers are made on the total value of up-facing pips on the two dice. They are also frequently used to randomize allowable moves in board games such as Backgammon.

## Terms

While the terms ace, deuce, trey, cater, cinque and sice are hardly common today having been replaced with the ordinary names of the numbers one to six, they are still used by some professional gamblers to describe the different sides of the dice. Ace is from the Latin as, meaning "a unit" ; the others are the numbers 2–6 in old French.

## Probability

For a single roll, the probability of rolling each value, 1 through 6, is exactly 1 in 6. For a double roll, however, the total of both rolls is not evenly distributed, but is distributed in a triangular curve, as follows:

<i>Total of Dice</i>	<b>2</b>	<b>3</b>	<b>4</b>	<b>5</b>	<b>6</b>	<b>7</b>	<b>8</b>	<b>9</b>	<b>10</b>	<b>11</b>	<b>12</b>
<i>Probability</i>	$1/36$	$2/36$	$3/36$	$4/36$	$5/36$	$6/36$	$5/36$	$4/36$	$3/36$	$2/36$	$1/36$

For the total of rolls of three or more dice, the curve becomes more bell-shaped with each additional die (according to the central limit theorem).

The probability of rolling the same random number repeatedly goes down by  $1/6$  with each additional die:

<i>No. of Dice</i>	<b>1</b>	<b>2</b>	<b>3</b>	<b>4</b>
<i>Probability</i>	$1/6$	$1/36$	$1/216$	$1/1296$

The above list only applies if the number to throw multiple times in a row is randomly chosen. To throw a certain chosen number more than once in a row, the probability is lower:

<i>No. of Dice</i>	<b>2*'X'</b>	<b>3*'X'</b>	<b>4*'X'</b>	<b>5*'X'</b>
<i>Probability</i>	$1/36$	$1/216$	$1/1296$	$1/7776$

## History

Dice were probably originally made from the ankle bones of hoofed animals (such as oxen), colloquially known as "knucklebones", which are approximately tetrahedral. Even today, dice are sometimes colloquially referred to as "bones", as in "shake them bones". Ivory, bone, wood, metal, and stone materials have been commonly used, though the use of plastics is now nearly universal. It is almost impossible to trace clearly the development of

dice as distinguished from knucklebones, because ancient writers confused the two games. It is certain, however, that both were played in prehistoric times.

The fact that dice have been used throughout the Orient from time immemorial, as has been proved by excavations from ancient tombs, seems to point clearly to an Asiatic origin. Dicing is mentioned as an Indian game in the Rig-veda. In its primitive form knucklebones was essentially a game of skill played by women and children. In a derivative form of knucklebones, the four sides of the bones received different values and were counted as with modern dice. Gambling with three or sometimes two dice was a very popular form of amusement in Greece, especially with the upper classes, and was an almost invariable accompaniment to banquets (symposia).

The Romans were passionate gamblers, especially in the luxurious days of the Roman Empire, and dicing was a favourite form, though it was forbidden except during the Saturnalia. Horace derided what he presented as a typical youth of the period, who wasted his time amid the dangers of dicing instead of taming his charger and giving himself up to the hardships of the chase. Throwing dice for money was the cause of many special laws in Rome. One of these stated that no suit could be brought by a person who allowed gambling in his house, even if he had been cheated or assaulted. Professional gamblers were common, and some of their loaded dice are preserved in museums. The common public-houses were the resorts of gamblers, and a fresco is extant showing two quarrelling dicers being ejected by the indignant host.

Tacitus states that the Germans were passionately fond of dicing, so much so, indeed, that, having lost everything, they would even stake their personal liberty. Centuries later, during the middle ages, dicing became the favourite pastime of the knights, and both dicing schools and guilds of dicers existed. After the downfall of feudalism the famous German mercenaries called *landsknechts* established a reputation as the most notorious dicing gamblers of their time. Many of the dice of the period were curiously carved in the images of men and beasts. In France both knights and ladies were given to dicing. This persisted through repeated legislation, including interdictions on the part of St. Louis in 1254 and 1256.

In China, India, Japan, Korea, and other Asiatic countries, dice have always been popular and are so still. The markings on Chinese dominoes evolved from the markings on dice, taken two at a time.

## **Loaded dice**

A *loaded* or *gaffed* die is a die that has been tampered with to land with a selected side facing upwards more often than it would simply by chance. There are methods of creating loaded dice, including having some edges round and other sharp and slightly off square faces. If the dice are not transparent, weights can be added to one side or the other. They can be modified to produce winners ("passers") or losers ("miss-outs"). "Tappers" have a drop of mercury in a reservoir at the center of the cube, with a capillary tube leading to another mercury reservoir at the side of the cube. The load is activated by tapping the die on the table so that the mercury leaves the center and travels to the side. Often one can see the circle of



the cut used to remove the face and bury the weight. In a professional die, the weight is inserted in manufacture; in the case of a wooden die, this can be done by carving the die around a heavy inclusion, like a pebble around which a tree has grown.

A variable loaded die is hollow with a small weight and a semi-solid substance inside, usually wax, whose melting point is just lower than the temperature of the human body. This allows the cheater to change the loading of the die by breathing on it or holding it firmly in hand, causing the wax to melt and the weight to drift down, making the chosen opposite face more likely to land up. A less common type of variable die can be made by inserting a magnet into the die and embedding a coil of wire in the game table. Then, either leave the current off and let the die roll unchanged or run current through the coil to increase the likelihood that the north side or the south side will land on the bottom depending on the direction of the current.

Cheat dice (see below) are often sold as loaded dice but usually are not technically loaded.

Transparent acetate dice, used in all reputable casinos, are harder to tamper with.

Plastic dice can be biased to roll a certain number by heating them (for example in an oven) with the desired face upward, so that the plastic will soften slightly and "pool" at the opposite (bottom) side of the die without showing much, if any, visible distortion.

## **Materials**

It is unknown of what material the earliest polyhedral dice were made. A pair of icosahedral (20-sided) dice dating from Roman times are on display at the British Museum. Roughly cubical six-sided Roman dice made of wood, bone, ivory and lead have been discovered. It is possible that polyhedral dice were used by even earlier cultures.

Precision casino dice, used for the game of craps, are made from cellulose acetate. These dice may have a polished finish, making them transparent, or a sand finish, making them translucent. While black is the most common color, they are also seen in casinos in green, amber, blue, or other colors. Casino dice have their pips drilled, and then filled flush with a paint of the same specific gravity as the acetate, such that the dice remain in perfect balance. In casino play, a stick of 5 dice are used, all stamped with a matching serial number to prevent a cheat from substituting a die.

Polyhedral dice are usually made of plastic, though infrequently metal, wooden, and semi-precious stone dice can be found. Early polyhedral dice from the 1970s and 1980s were made of a soft plastic that would easily wear as the die was used. Typical wear and tear would gradually round the corners and edges of the die until it was unusable. Modern polyhedral dice are typically made of high-impact plastic and can withstand years of use without visible wear. Lou Zocchi and his company Gamescience not only always guaranteed that their high-impact plastic dice would not wear down the way other companies' dice did, but for years criticized major dice manufacturers for crafting unfair, loaded dice through sloppy polishing techniques and substandard materials. He was also the creator of the famous and bizarre 100 sides dice, the Zocchihedron.

Polyhedral dice can be purchased at most hobby stores in numerous combinations. In the early days of role-playing games, most dice came with the numbers uninked and players took

great care in painting their sets of dice. Some twenty-sided dice of this era came numbered zero through nine twice; half of the numbers had to be painted a contrasting color to signify the "high" faces. Such a die could also double as a ten-sided die by ignoring the distinguishing coloring.

## **Cubical dice with faces representing values other than digits 1 through 6**

As noted, the faces of most dice are labelled using an unbroken series of whole numbers, starting at one (or zero), expressed with either pips or digits. Common exceptions include:

- colour dice (e.g., with the colours of the playing pieces used in a game)
- Poker dice, with the following labels somewhat reminiscent of the names of standard playing cards. Several varieties exist, including those with more than six sides, but the most common contain the following pattern:
  - Nine (of spades; black)
  - Ten (of diamonds; red)
  - Jack (blue)
  - Queen (green)
  - King (red)
  - Ace (of clubs; black)
- dice with letters (e.g. in Boggle)
- average dice (2, 3, 3, 4, 4, 5)
- cheat dice, such as:
  - one face each with two through five, and two with sixes, or
  - for craps, a pair of dice in which one die has five on each face, and its mate has a mixture of twos and sixes, guaranteeing rolls of seven or 11. These novelties are often sold as "loaded dice," but technically, since these dice are not weighted, that would be a misnomer.
- so-called "3-sided dice", each a cubical die with each of its faces marked identically to exactly one of the other faces, yielding three equally likely distinguishable outcomes, for example:
  - those (usually abbreviated d3) in some role-playing games, labelled 1, 2, and 3 respectively, or
  - FUDGE dice, with two minus (−) sides, two blank sides, and two plus (+) sides; a throw of n fudge dice yields an integer from n to n, by reading "" as "1" and "+" as "+1" and summing the faces showing.
- random direction dice also known as scatter dice. The dice have arrows on each side, the outcome of a roll is a random direction. Scatter dice are used in tabletop wargames such as Warhammer Fantasy Battle to determine random movements of troops, wind direction or direction of misfired arms.
- A *doubling die* with the numbers 2, 4, 8, 16, 32, and 64 is used in backgammon and some other boardgames. This die is not actually rolled; it is used to denote the current stakes of the game.

- Some board games use dice with positive and negative numbers for use in gain or loss of something.
- Sicherman dice, a pair having the same odds of rolling a given sum as a pair of standard six-sided dice, but with different markings: one die has 1, 3, 4, 5, 6, and 8, and the other has 1, 2, 2, 3, 3, and 4. Sicherman dice are the only such alternative arrangement if positive numbers are used.

## Non-cubical dice

*Polyhedral dice* are *dice* with more or fewer than six sides. They were once almost exclusively used by fortune-tellers and in other occult practices, but they have become popular lately among players of wargames, trading card games, German-style board games, and role-playing games. Although polyhedral dice are a relative novelty during modern times, some ancient cultures appear to have used them in games (as evidenced by the presence of two icosahedral dice dating from the days of ancient Rome on display in the British Museum). Such dice are typically plastic, and have faces bearing numerals rather than patterns of dots. Reciprocally symmetric numerals are distinguished with a dot in the lower right corner (6. vs 9.) or by being underlined (6 vs 9).

Dice with various numbers of faces are often described by their numbers of sides, with a d6 (or "D6") being a six-sided die, a d10 a ten-sided die, and so forth. When more than one die is used, the standard terminology is to have two numbers separated by the 'd' or 'D' - Number of Dice d Number of sides on each die.[1] Hence 2d6 (or 2D6) is simply Two Six-Sided Dice, suitable for games of Monopoly or Craps.

The platonic solids are commonly used to make dice of 4, 6, 8, 12, and 20 faces. Other shapes can be found to make dice with 5, 7, 10, 16, 24, 30, 34, 50, or 100 sides, but other than the 10 sided, they are rarely used. A large number of different probability distributions can be obtained using these dice in various ways; for example, 10-sided dice (or 20-sided dice labeled with single digits) are often used in pairs to produce a linearly-distributed random percentage. Summing multiple dice approximates a normal distribution (a "bell curve"), while eliminating high or low throws can be used to skew the distribution in various ways. Using these techniques, games can closely approximate the real probability distributions of the events they simulate.

There is some controversy over whether manufacturing processes create genuinely "fair" dice (dice that roll with even distributions over their number span). Casino dice are legally required to be fair; those used by all others hold no such requirement.

Spherical dice also exist; these function like the plain cubic dice, but have an octahedral internal cavity in which a weight moves which causes them to settle in one of six orientations when rolled. However, these dice are somewhat awkward in use because they require a flat and level surface to roll properly — an uneven surface often causes them to stop partway between two numbers, while a sloped surface will obviously cause the dice to keep rolling.

Cowry shells or coins may be used as a kind of two-sided dice ("d2"). (Because of their shape, cowry shells probably do not yield a uniform distribution.)

## Standard variations

The most common non-cubical dice — often sold in sets of five or six that are each differently shaped but with the same pair of background and marking colors — include one each of the five Platonic solids, which are highly symmetrical. The six-die versions add the pentagonal trapezohedron, in which the faces (identical to one another as to angles and edge lengths) each have two different lengths of side, and three different sizes of angle; the corners at which multiple faces meet are also of two different kinds.

Type	Shape	Platonic?	Notes
d4	tetrahedron	Yes	Each face has three numbers: they are arranged such that the upright number (which counts) is the same on all three visible faces. Alternatively, all of the sides have the same number in the lowest edge and no number on the top. This die does not roll well and thus it is usually thrown into the air instead.
d6	cube	Yes	A common die. The sum of the numbers on opposite faces is seven.
d8	octahedron	Yes	Each face is triangular; looks something like two Egyptian pyramids attached at the base. Usually, the sum of the opposite faces is 9.
d10	pentagonal trapezohedron	No	Each face is kite-shaped; five of them meet at the same sharp corner (as at the top of the diagram in this row), and five at another equally sharp one; about halfway between them, a different group of three faces converges at each of ten blunter corners. The ten faces usually bear numbers from zero to nine, rather than one to ten (zero being read as "ten" in many applications), and often all odd numbered faces converge at the same sharp corner, and the even ones at the other.
d12	dodecahedron	Yes	Each face is a regular pentagon.
d20	icosahedron	Yes	Faces are equilateral triangles. Typically, opposite faces add to twenty-one.

## Rarer variations

Type	Shape	Notes
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d2	cylinder	<p>A d2 is not really a die, and is nothing more than a coin shape with 1 marked on one side and 2 on the other. While some tasks in roleplaying require flipping a coin, it is usually referred to as such, and not as rolling a d2. It is possible, however, to find d2's of this sort for purchase, but they are rare, and can typically be found among other joke dice. More frequently, "d2" is rolled by rolling 1d6 with odd-numbered results representing "1" and even-numbered results representing "2". Some cubical d2's are also sold, resembling d6's but with the numbers 1 and 2 printed on the die three times each.</p> <p>The d3 is essentially a rounded-off triangular prism, intended to be rolled like a rolling-pin style die. The die is rounded-off at the edges to make it impossible for it to somehow land on the triangular sides, which makes it look a bit like a jewel. When the die is rolled, one edge (rather than a side) appears facing upwards. On either side of each edge the same number is printed (from 1 to 3). The numbers on either side of the up-facing edge are read as the result of the die roll. In addition to this type of "true" d3 it is also possible to find six-sided dice which just repeat the numbers from 1 to 3 twice. This type of die is just as fair, easier to roll, and much more common than "true" d3's. Another possible shape is the "American Football" or "Rugby ball" shape, where the ends are pointed (with rounded points) rather than just rounded. In most games a standard d6 is used with half of the value (rounded up) being used, effectively 1 and 2 being 1, 3 and 4 being 2 and 5 and 6 being 3.</p>
d3	Rounded-off triangular prism	
d5	Triangular prism	<p>The d5 is a prism that is thin enough to land either on its "edge" or "face". When landing on an edge, the result is displayed by digits (2-4) close to the "pyramid"'s top. The triangular faces are labeled with the digits 1 and 5.</p> <p>Similar in constitution to the d5. When landing on an edge, the topmost edge has pips for 1-5. The pentagonal faces are labeled with the digits 6 and 7. This kind of die is particularly odd since it has pips for five of its results and digits for two of them. Seven sided dice are used in a seven-player variant of backgammon. Some variants have heptagonal ends and rectangular faces.</p>
d7	Pentagonal prism	
d12	rhombic dodecahedron	Each face is in the shape of a rhombus.
d14	heptagonal dipyramid	Each face is in the shape of an isosceles triangle.
d16	octagonal dipyramid	Each face is in the shape of an isosceles triangle.
d24	tetrakis hexahedron	Each face is in the shape of an isosceles triangle.

d24	deltoidal icositetrahedron	Each face is in the shape of a geometric kite.
d30	rhombic triacontahedron	Each face is in the shape of a rhombus (diamond-shaped).
d50	icosakaipentagonal dipyramid	Just like the d14 and 16, the faces of the d50 are isosceles triangles, although very narrow.
d66	—	Not a true die, a d66 is sometimes specified by games using six-sided dice that need to generate a larger number than normally possible with these. It consists of rolling two six-sided dice and reading one as the "tens" place and the other as the "ones", in much the same way as rolling a d100 (see below). This name is a trademark; true d100s are rare, and they are often nicknamed either death stars due to a passing resemblance to the Star Wars structure or golf balls (sometimes with "of doom" added) since the surface of most d100s resemble a golf ball's dimples. Two d10s can substitute for a d100, especially if one has sides labeled 00, 10, 20, ... 90. Use of this die, (or a replacement such as two different-colored d10s with there being a convention among players as to which of them will count as "tens" and which as "ones") is referred to as a percentile roll (d%).
d100 d%	Zocchihedron	

The full geometric set of "uniform fair dice" (with all congruent sides) are:

Platonic solids: 5 regular polyhedra: (4, 6, 8, 12, 20 sides)

Catalan solids: 13 Archimedean duals: (12, 24, 30, 48, 60, 120 sides)

Bipyramids: infinite set of prism duals, triangle faces: (6, 8, 10, 12, ... sides)

Trapezohedrons: infinite set of antiprism duals, kite faces: (6, 8, 10, 12, ... sides)

## Dice notation

Often the names of the dice appear in formulas for calculating game parameters: e.g., hit points. '6d8+10', for example, will yield a number between 16 ( $6 \times 1 + 10$ ) and 58 ( $6 \times 8 + 10$ ), as it means 'Roll an eight-sided die six times and add ten to the total of all the rolls'. Occasionally they may be written '10×d6+20' or '1d6×10+20'; this means 'roll one six-sided die. Multiply it by ten and add twenty', and avoids boring repetitive dice-rolling at the expense of reducing the number of possible results (i.e., 30, 40, 50, 60, 70, and 80 are the only possible outcomes) compared to rolling the die 10 times (yielding any number between 30 and 80).

## Application in role-playing games

The fantasy role-playing game Dungeons & Dragons introduced the use of polyhedral dice during modern times and paved the way for their use in other role-playing games, using 20-, 12-, 10-, 8- and 4-sided dice in addition to the traditional 6 sided die.

Players use polyhedral dice together in a number of ways. For example, a d10 can be used in conjunction with a d6 instead of using a d20. If the d6 displays a 1, 2 or 3, the number on the d10 is resolved as 1–10. If the d6 displays a 4, 5 or 6, the number shown on the d10 is resolved to 11–20 ("1" is 11, "2" is 12, etc.). In cases like this, almost any sided die can be used as a "resolver".

Two d10 are often used to generate a number between 1 and 100. When tossing these dice, the player indicates which die is "high" (representing the tens position).

## Use of dice for divination

Some people believe that dice can be used for divination. Using dice for such a purpose is called cleromancy. A pair of standard 6-sided dice is generally used.

Astrological dice are a specialized set of three 12-sided dice for divination, using the concepts of astrology and containing astrological symbols for the planets, the zodiac signs and the astrological houses. The first die represents planets, the Sun, the Moon, and two nodes (North Node and South Node). The second die represents the 12 zodiac signs, and the third represents the 12 houses. In simplified terms, the planets, etc. could represent the 'actor'; the zodiac signs could represent the 'role' being played by the actor; and the house could represent the 'scene' in which the actor plays.

Rune dice are a specialized set of dice for divination (runecasting), using the symbols of the runes printed on the dice.

## See also

- Fuzzy dice
- Craps - on the casino game.
- Liar's dice - dice gambling game.
- Mexico - dice gambling game.
- Pig - dice gambling game.
- Threes - street dice game.

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Categories: Dice games



# Dice 10000

*6-Dice, 10,000 Dice* (or "*Dice\_10000*") is the name of a family dice game, very similar to Farkel.

## Contents

- 1 Equipment
- 2 Play
- 3 Scoring and Sets
- 4 Winning

## Equipment

- six dice
- sheet of paper for keeping score

## Play

- Everyone starts out "off the table." Each player collects points during his turn, which he may add to his total, or not, depending on how aggressively or cautiously he plays.
- To begin a turn, if the player is "off the table," he rolls all six dice.
  - As he rolls during his turn, the player is looking to score points, in the form of Sets (see figure below).
  - If a roll scores any points, he may set aside each Set he wants to claim points from, and either:
    - roll all remaining dice, hoping to score additional Sets.
    - or if all six dice are put aside into Sets, roll all six dice again, hoping to score additional Sets.
    - or pass play to the next player, if he deems the chance of failure to be too great.
  - If a roll scores no points, the player forfeits the points scored that turn, and play is passed to the next player.
- For a player who is "on the table," he may start by either:
  - rolling all six dice as described above,
  - or picking up the rollable dice from the last person. In this case, instead of starting this turn's scoring from zero, as usual, scoring starts from the score of the last person.

example: Player 1 stops his turn with 700 points, and opts to not roll his remaining two dice. He adds 700 to his score, and it is now Player 2's turn. Player 2 may pick up those two dice, and if he scores anything with them, he adds those points to 700, as his score. Or Player

2 may opt to start with all six dice, and start his own scoring from zero. **(Note: In one variation of the game, players do not have the option to continue the previous player's turn.)**

- At the end of a turn,
  - If, after rolling, a player is "off the table," and he has scored at least 1000 in a turn, he is "on the table."
  - If by this point, a player is "on the table," he can add whatever score he got that turn, to his total.

## Scoring and Sets

The following Sets are given for scoring. You cannot put sets together, as you are expected to in Yahtzee or Farkle. If you set aside a triple of 5's, then rolled a single 5, you could not claim a four-of-a-kind. You could merely claim one triple of 5's, and one single 5. Your score would be  $500 + 50 = 550$ . When rolling 4 or greater of a kind, each additional kind that is matched doubles your score. So if you rolled five 4's, your score would be 400 for the first 3. Then double that for the fourth, making it 800, then double again to make it 1600 points.  $400 \times 2 \times 2 = 1600$ .

a single 1 : 100 a single 5 : 50 triple of 1's : 1000 triple of 2's : 200 triple of 3's : 300 triple of 4's : 400 triple of 5's : 500 triple of 6's : 600 four-of-a-kind : Multiply triple score by 2 five-of-a-kind : Multiply four-of-a-kind score by 2 six-of-a-kind : Multiply five-of-a-kind score by 2  
six of 1's : Instant Win three pair : 750 straight (length 6) : 750

An alternative scoring set, using the above but with the following changes.

3 pairs (boxcar): 750 - This set may be built over what you set aside and may replace any current score from the dice.

## Winning

A typical game is played for about 20-30 minutes with a player needing to reach 10,000 points.

When the first player crosses that threshold, all other players get one more chance to top that player's score. If a player can, then that player wins. Otherwise, the first player to cross that threshold is the winner.

Categories: Dice games

## Dice control

*Dice control* (also known as *dice influencing*) in casino craps is a controversial theory where proponents claim that individuals can learn to carefully toss the dice so as to influence the outcome. There is a small but dedicated community of controlled dice shooters that claim proof of dice influencing in casino conditions.

The concept of "controlled shooting" goes beyond simply "setting the dice" prior to shooting. It purports to involve limiting the degrees of freedom in the rigid body dynamics of the dice. The theory is that if the dice are properly gripped and tossed at the right angle they will land just before the back wall of the craps table, then gently touch the wall, greatly increasing the probability of their remaining on the same axis. If executed properly and consistently this technique would be able to change the game's long-term odds from the house's favor to the player's favor.

Two of the leading figures in the field are Steve "Heavy" Haltom and Thom "Irishsetter" Morgan. Additionally Chris Pawlicki, a mechanical engineer who under the pseudonym SharpShooter wrote a book on the subject called *Get The Edge At Craps: How to Control the Dice*, claims to have defined the math and science behind dice control.

The concept of such precision shooting claims to elevate craps from a random game of chance, to a sport, not unlike golf, darts, or pool.

The mainstream casino gaming industry gives no credence to these claims.

Categories: Dice games

## Diceland

*Diceland* can refer to either of two games:

- A Tile-based board game designed by Spartaco Albertarelli and released in 2002 by Kidultgame
- A Tabletop game played with collectible sets of dice designed by Toivo Rovainen and James Ernest and released in 2002 by Cheapass Games.
- 

Contents

- 1 Diceland (tile based game)
- 2 Diceland (collectible dice game)

### Diceland (tile based game)

Players place hexagonal tiles to form a playing area. They then roll dice to form an army. The dice themselves form the soldiers in the army, and the number rolled is the strength of the soldier. As a result, in smaller games luck plays a large factor and the game can be very one-sided. Larger games tend to be more balanced, though it is not guaranteed.

## **Diceland (collectible dice game)**

Players roll paper cut-out octahedral dice into a combat arena. The dice are then used in the same way as miniatures - they can be moved around the arena and attack other dice.

The original Diceland set was Diceland: Deep White Sea, released in 2002. It was followed in 2003 by three more sets: Diceland: Ogre, Diceland: Space, and Diceland: More Space, and in 2005 with Diceland: Cyburg and Diceland: Dragons. There is also a Diceland set of Button Men. In addition, there are promotional dice; the 2005 summer promo die features characters from the world famous webcomic Penny Arcade.

In 2003, Diceland won the Origins Vanguard Award 2002.

Categories: Dice games

## **Don't Go To Jail**

*Don't Go To Jail* is a Parker Brothers dice game for two or more players inspired by Monopoly. The game is played by rolling ten dice and attempting to roll matches to score points.

Seven of the dice have various colours, utilities, or railroad icons on them (all from the Monopoly board game). The remaining three dice are blank on four sides, with the other two showing (depending on the version) "Go," "to", or "jail"; or the policeman representing jail.

The player scores points for the round if the dice rolled create a monopoly set, utility, or railroad. The amount of dice that need to score points depends on the property. If a die shows the jail icon, that die is placed aside. The player can continue rerolling unmatched dice until he decides to end his turn and claim his points, or until all three "Go to jail" dice land faceup (causing him to lose all points earned so far that round and pass his turn).

The game is won when a player earns enough points from matches. The number of points required to win is determined by the players at the start of the match.

Categories: Dice games

## **Dragon Dice**

*Dragon Dice* is a collectible dice game originally made by TSR, Inc. It is one of only a handful of collectible dice games produced in the early 1990's. In 1995, Dragon Dice won the Origins Award for Best Fantasy or Science-Fiction Board Game 1995. The races and monsters in Dragon Dice were created by Lester Smith and include some creatures unique to a fantasy setting and others familiar to the Dungeons & Dragons role-playing game.

The game classifies magical power by element: air, earth, fire, water, and death. Nearly every race in the game is composed of two of these elements. Dragons and dragon-related dice (Dragonkin), are all composed of a single element each.

TSR produced the starter races and several expansion packs, printing a total of eight races and several promotional dice for the game. After TSR's purchase by Wizards of the Coast, one additional race was created. The game was then sold to SFR, Inc. who produced the tenth race and completed two sets of promotional dice.

## Contents

- 1 Overview
  - 1.1 Types of dice
    - 1.1.1 Units
    - 1.1.2 Terrains
    - 1.1.3 Dragons
    - 1.1.4 Magestorm
  - 1.2 Gameplay
    - 1.2.1 Maneuver
    - 1.2.2 Magic
    - 1.2.3 Missile
    - 1.2.4 Melee
    - 1.2.5 Reinforce and reserves

## Overview

While this is by no means a complete accounting of the game, it should explain the basics of play.

## Types of dice

### Units

UNITS are six- and ten-sided (see Monsters, below) dice, and have two colors showing the elements of which their race is comprised. They come in three sizes, each corresponding to a particular amount of "health" from 1 to 3 points. One side on each unit die has an ID icon, which counts as whatever action is being rolled for. The remaining sides have some number of either melee, missile, maneuver, magic, save, or special icons. Generally, the more health a unit has, the more icons it will have. Units are also divided by type as well as size. Some are melee (combat) dice, others are proficient in missile attacks, and others are skilled with magic. Before the start of the game, units are divided into three separate armies, Home, Horde and Campaign. The Home army defends your Home terrain, the Horde army is placed at an opponent's Home terrain, and the Campaign army is placed at the Frontier. Before the

start of the game, players roll their Horde armies, and the player with the most maneuver points may choose the Frontier terrain, or to go first.

MONSTERS are ten-sided units and have a single icon on each face which can count for 1 to 4 points. Monsters are part of a player's army and each one counts as four points of health.

Players build armies to a predetermined amount of health. The standard game is 36 points of health, but smaller and even larger games are not uncommon.

## **Terrains**

TERRAINS are eight-sided and have two colors that indicate of what elements the terrain is composed. For example, a Swampland terrain is green and gold, showing it is made of earth and water. Each face of a terrain die is numbered and has an icon for missile, melee, or magic. The number and the icon shown indicate how far apart armies at that terrain are. If a Magic icon (starburst) is showing, then the armies are so far apart they can only cast spells. A Missile face (arrow) means they are close enough to shoot at each other, and a Melee icon (sword) means they are close enough for hand-to-hand combat to take place. Each player brings two terrains to the game, one Home terrain and one proposed Frontier terrain. Some races gain benefits such as extra maneuvers or saves if they are at a certain terrain. The goal of the game is to control two such terrains by "turning" them to the 8th face. An army capturing an 8th face also gains double maneuvers and double saves. The eighth face of terrains has one of four special icons: City, Temple, Tower and Standing Stones. Each gives an additional bonus to the army that possesses them.

EXAMPLES: An army with a Temple is immune to the effects of Death (black) magic, a City allows for the recruiting or promoting of units, a Tower allows for a Missile action to any other terrain, and Standing Stones allow that army to cast magic of that terrain's color, even if the army is not made up of those colors.

## **Dragons**

DRAGONS are twelve-sided and of a single color. Each face has the image of a dragon part that will show what action the dragon takes when rolled against an army. Dragons must be summoned to a terrain through the use of magic. Players do not control dragons they summon, so bringing one into play can be risky since the possibility exists that it may attack the very player that summoned it! One dragon is brought to the game for every 24 health of units in your armies. Thus, in a 36 health game you would bring two dragons.

## **Magestorm**

MAGESTORM dice are magical items, artifacts and dragonkin. Most are four-sided magical items that can count as 1 to 3 health, replacing units. They are single-colored and may be carried by any army. Again, the larger items will have more icons and are thus more powerful. Armies carry these items to aid them in certain actions such as maneuvers, magic, missile or melee when rolled for that action. Larger magical items, called Artifacts, are ten-sided dice and count as four health of units. Dragonkin are 6-sided one-color units that can be summoned to a terrain and fight with the army there. Dragonkin will not fight against a dragon of the same color. For every full three points of other units a player brings to a game, he is allowed (but not required), to bring one point of dragonkin.

EXAMPLE: In a 24-point game, a player can bring 8 points of dragonkin.

## **Gameplay**

On a player's turn, one is allowed two marches, or actions, with their armies. What action they may take depends on what icon is showing on the terrain face. However, a single army may not take two marches in the same turn.

EXAMPLE: A player has pulled all of their units into a single army at one terrain. On their turn they get only one march with that army.

## **Maneuver**

Before taking an action with their army, a player may choose to attempt to move the terrain face up or down. They announce this, and if unopposed, change the terrain. If an opponent at the same terrain wishes to oppose the move, then both players roll their army, counting maneuver and ID icons for the total number of points rolled. If the acting player's total is equal to or exceeds the opposing player's total, then they win and may turn the terrain die one face up or down.

EXAMPLE: The terrain is a missile face and the player has a mostly melee army. Turning it to a melee face allows them to skirmish their opponent.

## **Magic**

If the terrain face is a Magic icon, a player may attempt to cast magic and roll their army, counting magic icons and IDs. Those dice on which an ID is rolled may double their magic total if they match at least one color of the terrain. After tallying points, the acting player may cast spells to help their own armies or hinder an opponent's. Spells are assorted by color,

and have varying effects such as inflicting damage, adding protection, or even summoning a dragon.

### **Missile**

While at a terrain with a Missile face, the acting player can choose to shoot at an army at the same terrain or at the frontier. The army is rolled and all missile and ID icons are counted for the total number of hits. The targeted army is rolled for saves, and if enough saves are not generated, units are removed from the army and sent to the Dead Unit Area (DUA). The targeted player does not get to roll a return shot.

EXAMPLE: the acting player rolls 5 missile icons and 2 IDs for 7 hits. The targeted player rolls only 4 saves, so would send a total of 3 health of units to the DUA.

### **Melee**

At a terrain with a melee (sword) icon showing, the acting player can choose to engage their opponent in a skirmish. The army is rolled, and all melee and ID icons are counted for the total number of hits on the targeted army. That army is then rolled for saves (like in a missile attack), and if enough saves are not rolled, the appropriate number of units are sent to the DUA. The targeted army then rolls for a counter-attack against the acting player's army, who must then save against the attack or send units to the DUA as well.

### **Reinforce and reserves**

When a player has taken both marches, they may withdraw any number of units from terrains into the Reserves area. These units may then be sent to any terrain at the end of the player's next turn during the Reinforcement phase, but before others are withdrawn into the Reserves. Units in the Reserves may take a march, but they may not maneuver a terrain and are limited to attempting friendly magic (they cannot target an opposing army or affect a terrain). The one exception to this is Amazons, which may take a missile action to their Home terrain or the Frontier while in reserves.

Some units and monsters have SAIs (Special Action Icons). For example, a CANTRIP icon allows for up to 4 points of magic during any action other than maneuvers that can be used immediately. A BULLSEYE icon rolled during a missile action targets an individual unit that must for saves before the targeted army does. The SMITE icon inflicts up to 4 hits on a target army, who cannot save against them and must remove that many health from the army before rolling for saves.

A player wins by maneuvering two terrains to the 8th face, or through attrition by removing all of an opponent's pieces from the game.

Categories: Dice games



# Dudo

*Dudo* (Spanish I doubt), *Cacho* or *Cachito* is popular dice game played in Peru, Chile, Bolivia and other Latin American countries. This game can be played by two or more players and, basically, consists in guessing how many dice, placed under cups, there are on the table showing a certain number. The last player having a die is the winner.

## Contents

- 1 Game play
- 2 The aces
- **3 "Obliging" rounds**
- 4 The Dudo terminology in Spanish

## Game play

Each player starts having five dice and a cup, which is used for mixing the dice and covering your dice from the other players. After deciding who starts the game (this can be done by making each player roll one die, for example), the first player tells how many dice are showing a number (for example, "five threes") and tells the next player (It doesn't matter if it's the one to the left or to the right) to *increase*, *pass*, *equalize* or *doubt* the announcement. Equalizing and doubting end the round.

1. Increase: If the player wants to increase, he/she increases the number of dice (e.g. from "five threes" to "six threes") or the die number (e.g. "five threes" to "five sixes") or both.

2. Pass: For passing, you need to have five different or five equal dice or a full house (e.g. 2,2,2,5,5). The next player announcement will be based on the player before the one who passed. You can, however, lie when passing, but the next player can doubt the pass (see below).

3. Equalize: If he/she equalizes, this means that the player is sure that the previous announcement is the exact guess. The dice are shown. If the guess was correct, the player wins a die from the table (unless the player has five dice). If not, the player loses a die and puts it in the center of the table.

4. Doubt: If the player doubts, it means that the player doubts about the correctness of the guess. The dice are shown and, if the guess is *not* correct, the *previous* player (who made the announcement) loses a die. If it's correct, the player who doubted loses a die. Also, a player can doubt the pass if the previous player passed. When doubting the pass, you lose a die if the player that passed had the requirement and you win if he/she didn't. After doubting or equalizing, a new round starts by the player that lost or won a die. The game continues until one player remains with dice.

## The aces

In Dudo, the ace (die showing one) is a kind of Joker. When checking the dice, aces are counted as the dice that were announced if there's at least one die of the number announced (e.g. If the final announcement is "three twos", the aces are counted as twos if there's at least one 'true' two).

The aces have special rules when increasing. You can increase (actually, decrease) a number to ace by dividing the quantity of dice by two, rounding up if it's necessary. For example, "six twos" can be transformed into "three aces" and "eleven fives" into "six aces" ( $11/2 = 5.5$ , then, 6). Also, you can increase aces, but this is performed by doubling and adding one to the quantity of dice. Example: "Four aces" is transformed into "Nine (anything)" ( $2*4 + 1 = 9$ ) or "two aces" are "5 (anything)" ( $2*2 + 1 = 5$ ). Obviously, you can increase "three aces" into "four aces" as normally. These rules are not followed when the player who begins a round starts with aces. In those cases, the aces can be transformed into anything (including decreasing the number) by the next player. Then, the special rules are again used.

## "Obliging" rounds

When a player that had two dice lose one, an "obliging" round is made (obviously, this player will start the round because of losing a die).

The rules in these rounds are different.

- The aces don't count as jokers
- No one can equalize or pass. The round ends when someone doubts.
- Only players having one die can see his dice. Other players can't see them until the round is over.
- When increasing, the die number can't be changed (i.e. "five fours" can't be increased to "five sixes").
- Each player can "oblige" only once during the whole game. If the player wins a die by equalizing and then, he/she loses it, there's no "obliging" round.

## The Dudo terminology in Spanish

These are the original names of the various "commands".

Cacho = cup

Paso = I pass

Dudo = I doubt

Dudo el paso = I doubt the pass

Calzo = I equalize (lit. I stick)

Obligo = I oblige

The dice number, even while playing in Spanish, have their special names. These names are given to avoid cacophony (for example, "seis seis" to call six sixes) and to "spice up" the

game. The names can also have slight variants depending on the country and even the group of players.

Common dice number names are:

- 1 = As (pl. ases)
- 2 = Tonto (pl. tontos, lit. silly), pato (pl. patos, lit. duck, a common drawing of a duck is based on a big number 2), don (pl. dones, lit. Mr.)
- 3 = Tren (pl. trenes, lit. train)
- 4 = Cuarta (pl. cuartas, lit. fourth), cuarto (pl. cuartos, lit. room), cuadra (pl. cuabras, lit. block)
- 5 = Quina (pl. quinas, the word 'quina' in Chile and Argentina is used for saying 500 pesos)
- 6 = Sexta (pl. sextas, lit. sixth), cena (pl. cenas, lit. dinner)

Categories: Dice games

## Farkel

*Farkel* (also spelled Farkle) is a dice game that dates back many years. Some even trace it back to the days of the renaissance. There are 2 main variations of the game of Farkel. While very similar, there are slight differences in game play. The Equipment needed is the same for both. The different rules will be denoted by the sub-headings "Variation 1" or Variation 2."

### Contents

- 1 Equipment
- 2 Play
  - 2.1 Variation 1
  - 2.2 Variation 2
- 3 Scoring and Sets
  - 3.1 Variation 1
  - 3.2 Variation 2
- 4 Winning
  - 4.1 Variation 1
  - 4.2 Variation 2

## Equipment

- Dice (6)
- sheet of paper for keeping score
- a cup for shaking the Dice (optional)

## Play

### Variation 1

The first player is chosen by having each player roll one die. The highest roll is the first player to start. At the beginning of each turn, the player throws all six six-sided dice. If any dice are not lying flat or on the playing surface, they (only the dice not laying flat or on the playing surface) must be thrown over again. After each throw some or all of the points possible must be taken, setting aside each die that is counted. To continue, all of the die not counted must be thrown again. At each throw, points must be made or the turn ends. When no points are scored in a throw, this is called farkle.

When a player reaches at least 350 points in a turn and decides to stop, the points for the turn are added to their total score. A player with no points may not end his turn until he has rolled a total of 1000 points in the round.

The points of each throw are counted separately. When only one die remains, the player has three throws to get points (either a one or a five spot). When all six die have points, all six die are thrown again.

### Variation 2

- Everyone starts out "off the table." Each player collects points during his turn, which he may add to his total, or not, depending on how aggressively or cautiously he plays.
- To begin a turn if the player is "off the table," he rolls all six dice.
  - As he rolls during his turn, the player is looking to score points, in the form of Sets (see figure below).
  - If a roll scores any points, he may set aside each Set he wants to claim points from, and either:
    - roll all remaining dice, hoping to score additional Sets.
    - or if all six dice are put aside into Sets, roll all six dice again, hoping to score additional Sets.
    - or pass play to the next player, if he deems the chance of failure to be too great.
  - If a roll scores no points, the player forfeits the points scored that turn, and play is passed to the next player.
- For a player who is "on the table," he may start by either:
  - rolling all six dice as described above,
  - or picking up the rollable dice from the last person. In this case, instead of starting this turn's scoring from zero, as usual, scoring starts from the score of the last person.

example: Player 1 stops his turn with 700 points, and opts to not roll his remaining two dice. He adds 700 to his score, and it is now Player 2's turn. Player 2 may pick up those two dice, and if he scores anything with them, he adds those points to 700, as his score. Or Player 2 may opt to start with all six dice, and start his own scoring from zero.

- At the end of a turn,
  - If, after rolling, a player is "off the table," and he has scored at least 500 in a turn, he is "on the table."
  - If by this point, a player is "on the table," he can add whatever score he got that turn, to his total.

## Scoring and Sets

The following Sets are given for scoring. You cannot put sets together, as you are expected to in Yahtzee. If you set aside a triple of 5's, then rolled a single 5, you could not claim a four-of-a-kind. You could merely claim one triple of 5's, and one single 5. Your score would not be  $500 \times 2 = 1000$ , it would be  $500 + 50 = 550$ . You DO NOT have to score all possible dice in a throw, but you must count at least 1 die to continue rolling.

There are 2 variations on scoring depending on the rules you play by:

### Variation 1

a single 1 : 100 a single 5 : 50 triple of 1's : 1000 triple of 2's : 200 triple of 3's : 300 triple of 4's : 400 triple of 5's : 500 triple of 6's : 600 four-of-a-kind : twice three-of-a-kind five-of-a-kind : twice four-of-a-kind six-of-a-kind : twice five-of-a-kind three pair : 500 straight (length 6) : 1500

### Variation 2

a single 1 : 100 a single 5 : 50 triple of 1's : 300 triple of 2's : 200 triple of 3's : 300 triple of 4's : 400 triple of 5's : 500 triple of 6's : 600 four-of-a-kind : 1000 five-of-a-kind : 2000 six-of-a-kind : 3000 three pair (aka "a doodad") : 1500 (note: a four-of-a-kind and a pair is also a doodad) straight (length 6) : 1500 2 sets of triples on single roll : 2500

## Winning

### Variation 1

The first player to end their turn scoring more than 10,000 points signals the final round. Each remaining player has one last turn to get the points necessary to surpass the high-score. When the last player in the final round is done, the player with the greatest number of points is declared the winner.

### Variation 2

For a good hour of play with five or six people, you might play to 50,000 points. When the first player crosses that threshold, all other players get one more chance to top that player's score. If a player can get more points than the first person to go out, then that player wins. Otherwise, the first player to cross that threshold is the winner.

Categories: Dice games

## Hazard

*Hazard* is an Old English game with two dice which was even mentioned in Geoffrey Chaucer's *Canterbury Tales* in the 14th century. The name "hazard" derives from the Arabic word *az-zahr*, the plural of "dice." Hazard is not interchangeable with "Grand Hazard," which is played with three die; Grand Hazard is another name for Sic bo.

Despite its complicated rules, hazard was so popular in the 17th and 18th centuries that it was often played for money; games of chance were thus called "hazard games." At Crockford's Club in London, hazard was especially popular. In the 19th century, the game craps developed from hazard through a simplification of the rules.

### Contents

- 1 Rules
- 2 Betting
- 3 Craps and Hazard

## Rules

Any number may play, but only one player — the *caster* — has the dice at any one time.

In each round, the caster specifies a number between 5 and 9 inclusive: this is the *main*. He then throws two dice.

- If he rolls the main, he wins (*throws in* or *nicks*).
- If he rolls a 2 or a 3, he loses (*throws out*).
- If he rolls an 11 or 12, the result depends on the main:
  - with a main of 5 or 9, he throws out with both an 11 and a 12;
  - with a main of 6 or 8, he throws out with an 11 but nicks with a 12;
  - with a main of 7, he nicks with an 11 but throws out with a 12.
- If he neither nicks nor throws out, the number thrown is called the *chance*. He throws the dice again:
  - if he rolls the chance, he wins;
  - if he rolls the main, he *loses* (unlike on the first throw);
  - if he rolls neither, he keeps throwing until he rolls one or the other, winning with the chance and losing with the main.

This is simpler to follow in a table:

Main	Nicks	Outs	Chance
5	5	2, 3, 11, 12	
6	6, 12	2, 3, 11	
7	7, 11	2, 3, 12	Anything else
8	8, 12	2, 3, 11	
9	9	2, 3, 11, 12	

As long as he keeps winning, the caster may keep playing: but if he loses three times in succession, he must pass the dice to the player to his left, who becomes the new caster.

## Betting

Bets are between the caster and the bank (the *setter*), which may be the remaining players acting as a group.

If the caster nicks on the first throw, he wins an amount equal to his stake.

If he throws a chance, the setter gives him odds:

Chance		4	5	6	7	8	9	10
Main	54/3	-	4/5	2/3	4/5	1/1	4/3	
	65/3	5/4	-	5/6	1/1	5/4	5/3	
	72/1	3/2	6/5	-	6/5	3/2	2/1	
	85/3	5/4	1/1	5/6	-	5/4	5/3	
	94/3	1/1	4/5	2/3	4/5	-	4/3	

For example, with a stake of £10, a main of 7 and a chance of 5, a caster stands to win £15 ( $3/2 \times £10$ ); with the same stake, a main of 5 and a chance of 6, he could win £8 ( $4/5 \times £10$ ).

## Craps and Hazard

At its heart, craps is a version of Hazard where the main is always 7:

- if the *shooter* (the caster) rolls a 7 or 11 on his first throw, he wins;
- if he rolls a 2, 3, or 12, he loses;
- if he rolls anything else, that is his *point* (his chance); he now keeps throwing until he wins by *making* (rolling) his point or loses by rolling a 7.

However, betting in craps is significantly more complicated: see its entry for details.

Categories: Dice games

## Kismet

*Kismet* is the trademarked name of a commercial dice game introduced in 1964. E.William DeLaittre holds the trademark on the game, originally published by Lakeside Games, and currently produced by Endless Games. Marketed as "The Modern Game of Yacht", the game is played similarly to Yahtzee, with a few variations; the most notable difference is that in Kismet, the sides of the dice have different colored pips.

### Contents

- 1 Game contents
- 2 Overview of the rules
  - 2.1 The scorecard
    - 2.1.1 Basic section
    - 2.1.2 Kismet section
  - 2.2 Rolling subsequent Kismets

## Game contents

A standard Kismet game set comes in a predominantly green box marked with the Kismet logo; a black elongated rectangle containing six white diamonds, each containing the letters of the word "KISMET". The box logo also contains the words "IT IS FATE" inside the bottom of the logo.

The box itself contains a set of five dice. The dice are white, with colored pips; 1 and 6 are colored black, 2 and 5 red, 3 and 4 green. The box also contains a dice-throwing cup, a pencil, and a pad of official scorecards. Additional scorecards are available for purchase from the manufacturer.

## Overview of the rules



As in similar dice games, players take turns rolling five dice. Each player can take up to three rolls per turn, in order to create a scoring combination. On the second and third rolls, the player may hold dice from the previous rolls in order to create better scoring combinations. At the end of the third roll, the player must enter a score into an open field on his scorecard. If the player cannot make a score, he or she must enter a zero into an open field.

## **The scorecard**

Each player keeps a running tally of their rolls on a scorecard. The scorecard is laid out in two sections, the Basic Section and the Kismet Section.

### **Basic section**

The Basic Section of the scorecard plays similarly to Yahtzee's Upper Section, in that you score points for each number on the dice. There are six categories: Aces (ones), Deuces (twos), Treys (threes), Fours, Fives, and Sixes. You score for each category by adding the sum total of dice that match the category. For example, if you roll a 3, 4, 4, 6, and 4, you may score a total of 12 in the Fours section (the value, 4, multiplied by the number of dice, 3), a 3 in the Treys section (3x1), or a 6 in the Sixes section (6x1), if those categories are still open.

Like Yahtzee, you can earn a bonus of 35 points if you reach or exceed a total of 63 in the Basic Section. However, Kismet provides a scalable bonus; if you score at least 71 but no more than 77, you earn a bonus of 55 points; if you score 78 or more, you earn a bonus of 75 points. If you score 62 or fewer points in the Basic section, you earn no bonus points.

### **Kismet section**

The Kismet Section is scored based on creating dice combinations similar to poker hands. It is in this section that the colored dice come into play, as they determine scoring criteria below:

*2 Pair - Same Color* - The following combinations allow you to score this category; 1,1,6,6; 2,2,5,5; 3,3,4,4. The fifth die can be in any position. You score the sum total of all dice for this category; since the pair combinations invariably add up to 14, the lowest possible score (besides taking a zero) is 15, and the highest possible score is 20.

*3 of a Kind* - If three or more dice are of the same number, you can score the sum total of all dice for this category.

*Straight* - If your roll combination is 1,2,3,4,5, or 2,3,4,5,6, you can score 30 in this category. There is no "Small Straight" category in Kismet.

*Flush* - If all of your dice are of the same color, you can score 35 in this category.

*Full House* - If you roll three of a kind and a pair together (i.e. 2,2,4,4,4), you can score the sum total of the dice, plus 15 points.

*Full House - Same Color* - The same as a Full House, except that both numbers must be of the same color. You score the sum total of the dice, plus 20 points.

*4 of a Kind* - If four or more dice are of the same number, you can score the sum total of all dice, plus 25 points, for this category.

*Yarborough* - The "Chance" category of Kismet; if your dice do not fit any other open scoring combination, you can score the sum total of your dice in this category.

*Kismet* - Five of a Kind. Similar to the "Yahtzee" score, except that in Kismet, you take the sum total of the dice, plus 50 points.

## **Rolling subsequent Kismets**

Kismet does not provide for bonus points if you roll five-of-a-kind more than once. If you have successfully scored a Kismet and roll five-of-a-kind again, your roll can be used as a "joker", and you may score in any open category in the Kismet Section, or the appropriate number category in the Basic Section if it has not already been scored. Scoring occurs as the category specifies.

The twist of rolling a second Kismet comes in games where two or more people are playing; in multi-player games, if one player rolls a second Kismet, all other players must take a zero in the first open category in either the Basic or Kismet Sections. The penalized players also lose a turn, and the player who rolled the second Kismet gets to roll again. This applies to subsequent Kismets as well. This is where the name of the game comes into play; if you're capable of rolling multiple Kismets, then "it is fate" that you should win.

Categories: Dice games

# **Kuriki**

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## **Kuriki**

This is an evolving game with local variations and jargon, even variations of spelling of the word "Kuriki." Ku-Riki, Quirikii, Ka Rickey, Carickey, Kuricki or any variant has been known.

## **Equipment**

Two regular Dice and an opaque cup. Coffee cups are most often used, but any straight-sided vessel big enough to hold two dice with some jiggle room will work. **Object** To roll high, Lie well and catch others Lying and be the last man standing.

## **To Start**

*Kuriki* is played with any number of players seated at a table. Before the game, a number of Lives are decided on. Players lose Lives as the game progresses, and the last player with a Life left wins the game. Variation: Before playing, everyone posts equal cash stakes, usually something small, and the winner takes all this money.

Each player rolls one die to choose the player to start the game. In the case of a tie, the players with a tie re-roll, until there is one winner. He chooses whether the play will go clockwise or counter-clockwise at the beginning of the game.

## **The Play**

The first player becomes the Roller. He shakes the dice in the cup, then up-ends the cup on the table and peeks under it.

Once the player has looked under the cup, he declares his roll. In the case of a Fresh Roll (first roll of a game or first roll after a point), there is no minimum declared value. If the player is rolling on a point (if he has taken control of the cup from the previous Roller without pulling it), he must declare at least the value of the previous declaration. He may lie if he chooses to, but he must always declare the roll to be at least equal to the roll he received from the previous Roller. The roll is declared by value or nickname. The ranking of rolls and their nicknames is as follows:

1-2 "Kuriki" Highest possible roll. This roll is immediately displayed by the Roller. The player who would have acted next (the Next Guy) loses a life, and the Roller keeps the cup for the next roll. The Roller also collects all the accumulated foul money. Kurikis are recorded by the scorekeeper with a little drawing of a crown next to the player's name. If a player rolls

his third Kuriki in a game, in addition to the life lost by the next player, every player at the table (save the Roller) loses a life. Important: On a third Kuriki, the player next to act (the Next Guy) loses two lives, everybody else loses one. This is true for every third Kuriki any player rolls -- after six Kurikis, after nine etc.

6-6 "Double-Six" also "Boxcars," "Blackout"

5-5 "Double-Five" also "the Mime," after the pretending-to-feel-the-wall-in-front-of-me pantomime game.

4-4 "Double-Four" also "Walnuts," after an episode of the Dick Van Dyke show, where Dick, "Jerry" has a nightmare where all of his friends have been replaced by space aliens who eat only walnuts, but have no thumbs, and so cannot crack them.

3-3 "Double-Three" also "Scouts," after the Boy Scout salute.

2-2 "Double-Two" also "Nixons," after Richard Nixon's double-handed "victory" salute, co-opted by the counterculture as the "peace" sign.

1-1 "Double-One" also "Snake-Eyes," "Evil Eyes," "Danzig," (in ref. evil) and "Mother," (in ref. Danzig's most "evil" song -- Important: must be declared in mock-Danzig singing voice).

Other rolls are simply the tally of their pips, and are ranked in *descending numerical value* (11, 10, 9, 8, 7, 6, 5, 4). This creates some counter-intuitive rankings:

The lowest possible roll is a four (1-3).

Once the Roller has declared, he may not touch the cup, nor may anyone else, unless taking control of it (Taking the Cup), which requires him to roll, or Pulling the Cup, which exposes the roll and ends the point.

The player to act next, the Next Guy, has three options: He may Take the cup and roll, he may Pull the cup or he may Pass.

## Take

If the Next Guy takes the cup, he becomes the new Roller, and the point continues with his roll. On this roll, he also must declare a roll at least equal to the previous roll. It is generally advantageous to Roll if the original Roller has declared a low Roll, because being in control of the cup is a more powerful position than having to respond to a roll. As the declared Rolls get higher, the difficulty of matching or beating the Roll increases, so other choices become more viable.

## **Pull**

If the Next Guy instead Pulls the Cup, he reveals the Roll. If it can be seen that the Roller was lying, then the Roller loses a life, and the Next Guy becomes the new Roller. If he Pulls the Cup and the Roller was not lying, then the Next Guy loses a life, and the Roller rolls again. In either case, the next point begins with a Fresh Roll.

## **Pass**

If the Next Guy Passes, then he assumes responsibility for the Roll (the cup itself doesn't move, and he may not peek under it), and the person next to act becomes the new Next Guy. The new Next Guy may also take any of the three options; Roll, Pull or Pass.

Each player may pass to the next, but in any roll, each player may only pass once. In general, once a player has passed, the rest of the table then passes (choosing not to get involved), until responsibility for the cup (which does not physically move during a pass) comes around to the Roller. The Roller has peeked, so he knows what is under the cup, and knows if he has been handed a lie.

If he has (that is, if he had lied originally) then he may pull the cup on the player who passed to him (the last player to assume responsibility for the Roll). In this manner, lies are often sent around the table as Hate Mail. If a player suspects Hate Mail is on its way, it is in his best interest to Pull the Cup, or, if he is brave, he can Take the Cup and Roll, giving him a chance to take a life from the original Roller.

If the original Roller did not lie, and the cup makes its way around to him, he will certainly pass, so that he doesn't pull the cup on a Not-a-Lie, and cost himself a life. He may exploit this by intentionally passing what is in fact a lie to put pressure on the Next Guy, who will assume the Roll is Not-a-Lie, even if it is. This is a Pressure Move.

## **Fouls**

Other players may try to peek under the cup during a roll, so long as one ass-cheek stays in their chairs. Lifting both ass cheeks is a foul, and earns the player Ass-Lifting to Peek a foul, denoted on the score sheet with a little foul by the scorekeeper next to his name.

Foul penalties vary from game to game, but are usually (in the US) 25 cents. These fines go in the foul pot. A player who accumulates three fouls loses a life, and loses another life for every third foul -- after six fouls, after nine, etc.

## **Tarting**

The game progresses until a player is knocked-out. A player who is has one life left is "in the shit," "in the shithole," "shitholed," "in the stink" or "smelling." The first player knocked-out of the game is required to go (to the store if necessary) and get Poptarts, toast and serve

them to everyone at the table who wants them. This player is said to be "Tarted," and a player who has one life left, and at risk of being Tarted is said to be "in the Tarts," or "in the Tart-hole." The preferred flavor of Pop Tarts is Raspberry or Cherry.

## **Resolution**

The game progresses until one guy is left. He takes all the money (including any unclaimed foul money) and everyone cheers him.

## **Variations**

Short games, or those with a lot of players usually have five Lives though this number is varied. Traditionally, a score pad with each player's nickname (names are not used, for some reason) and a star-shape are used to mark the lives lost. A spot is placed at the end of each arm as lives are lost, and one final life is marked at the intersection of all the crossed arms. A + symbol, for example, denotes a five-life game.

The non-double rolls are sometimes referred to by two-digit numbers, for example 3-4 could be declared either 34 or 43 according to necessity. This increases the number of possible rolls from 15 to 36, and has the potential to extend a point for many rolls. In this variant, the highest non-double roll is 65, and Double-One beats it.

After a scoring a Kuriki, a player may reverse the direction of play on the next roll.

## **Other foul-worthy offenses**

Showing Disrespect to the Dice. Usually charged by a player and agreed-to by acclamation from the other players. Lobbying allowed/inevitable. Slam-dunk disrespect cases include: Referring to a single die as "a dice," allowing a die to fall out of the cup and onto the floor (immediate foul, and the table begins a countdown from ten, with another foul being charged if the die is not replaced in the cup before the count reaches zero, and another count-down begins, etc.), trapping a die under the rim of the cup.

Moving the cup once the dice have been looked at (as in sliding) and before another player has taken control of the cup, speaking in a foreign language at the table (the local language is not foreign, all others are).

Some players manhandle the cup, and cups have been broken in the process of juggling or slamming them down on the table. This is a serious disrespect foul known as a Rusk, after the first player to do it. The penalty is a triple-foul (e.g. a life). The player guilty of the Rusk must go get a new cup and clean up the remnants of the old one. - -

Categories: Dice games

# Liar's dice

*Liar's dice* (*liar dice*) is a name for a class of dice games for two or more players. A common feature of all Liar's Dice games is that each player in turn must either make a higher bid (or claim) than the previous player, or challenge the previous players' bid as too high.

While many variations exist, they generally fall into one of two major categories: "common hand" games, where all players are bidding on the group's collection of dice while only seeing their own portion of it, and "individual hand" games, where each player makes claims only about their own dice. These major variants are different enough to be considered separate games but unfortunately both have come to be known as "Liar's Dice".

It is easy to learn, requires minimal equipment, and can be played as a gambling or drinking game. Playing this game well requires the ability to deceive and to detect an opponent's deception. *Liar's dice* is known as **Dudo** or Perudo in South America. The game has also been marketed under the name, Call My Bluff, winning the 1993 Spiel des Jahres and Deutscher Spiele Preis awards. In Germany, Liar's Dice as a gambling game is called "Mäxchen"; the equivalent drinking game is sometimes called "Mexicali" or "Mexican" in the United States (see below). Given the similar pronunciations of these two German and English words, it is likely that the name of the one game derives from the name of the other. Whether the German or English version was the original, however, is less clear.

## Contents

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  - 1.1 Variants
  - 1.2 Gambling
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- 2 Rules (individual hand)
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  - 2.2 Play
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  - 2.4 Techniques
  - 2.5 An example hand
- 3 Rules (Mexican)
  - 3.1 Two-dice variations
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## Rules (common hand)

Five six-sided dice per player are generally used for play. Generally play includes dice cups for concealment as well.

Each round, the players roll their dice, keeping them concealed from the other players. One player begins bidding, picking a number 2 through 6. He then tenders a number which

he guesses to be equal to or less than the cardinality of the set of dice displaying this number on their top surface.

For example, the player might bid "three 4s". For the purposes of bidding, a 1 is wild and can count for any number 2 through 6.

After the first player has made his or her bid, the next player to the left can raise the bid or challenge the previous bid. Raising the bid means either raising the number chosen, or raising the quantity, in which case any number is allowed.

In the above example, the bid is "three 4s". The next player could bid "three 5s" or "four 2s", but not "three 2s" or "two 6s".

A player may challenge a bid. In some variants the player may only challenge when it is his turn to bid, in other variants the player may challenge at any time.

A challenge is generally indicated by revealing one's dice. All players then reveal their dice as well. The number chosen as well as the quantity is compared to the cardinality of the set of dice showing the number on their upper face. Most common variants also add 1s showing to this set for calculation purposes. A challenge is judged to be successful when the quantity guessed is greater than the cardinality of the set. A challenge is deemed to have failed if the quantity guessed is equal to or less than the cardinality of the set.

For example, if the bid of "seven 2s" is challenged, the quantity of 2s is counted. Say there are five 2s and three 1s showing; this is a total of eight 2s (assuming that a variant is played where 1 is wild). There are seven or more 2s, so the challenging player loses the challenge. If there are instead five 2s and only one 1, there are only six 2s and the bidding player loses the challenge.

## Variants

- A player that loses a challenge loses a die, and the next round begins. If there are three players and on the first round, Player 1 loses a die, then in the second round Player 1 has only four dice, whereas Players 2 and 3 still have five. This puts Player 1 at a disadvantage as he has less information than the other players about the dice.

- It is possible to call 1. For example, "Three 1s". In such a bid, there are no wild dice. When switching the bid to 1, the bid must respect the minimum of previous bid, divided by 2, rounded up. To switch back, respect the minimum of previous bid, multiplied by 2, plus 1. For example, a bid of four 6s could be followed by a bid of two 1s, which could in turn be followed by three 1s or five of any number.

- 6 is wild instead of 1

- When one player has distinct dice, he can *pass* once. If he does so, the bid raises automatically, and the next player cannot challenge the bid. Next player can raise using standard rules, challenge the *passed* status or *pass* as well. If more than one player *pass* simultaneously, next player's pass challenge can target any of them.



- Instead of raising or calling ('dudo'), the player can bet that the bid from the previous player is *exactly* correct. If the number is higher or lower, they lose a die, however if they are correct, they get to gain a discarded die.

## **Gambling**

There are a number of different ways to gamble with liar's dice. The simplest and probably most popular is for each game to be winner take all.

## **Drinking Game**

A few possible alternatives exist here:

- A successful challenge leads to the last bidder before the challenge to drink.
- Sometimes the drinking above is based upon the difference between the quantity guessed and the set of dice used in comparison.
- A failed challenge requires the challenger to drink.
- A failed challenge requires the challenger to drink in a much greater quantity if it were not the turn of the challenger to bid at the time of challenge.

## **Rules (individual hand)**

A closely related game, known as *Liar dice*, is played with a set of 5 poker dice. Each die is marked with Ace (A), King (K), Queen (Q), Jack (J), ten (T) and nine (9); the faces, as listed here, are in order of value with Ace being the best.

## **Summary**

A player is slid the dice cup with dice concealed under it, along with a claim as to what poker hand is shown on the dice. The player must either challenge the claim or roll the dice and make his or her own claim, which must always be higher than the previous claim. If a claim is challenged, the dice are revealed. If the dice show a poker hand at least as high as the claim, the challenger loses a "life" (a point). If the dice show a lower poker hand than claimed, the claimant loses a life. When a player has lost a number of lives (often 3), that player is out of the game. The last player remaining wins.

## Play

Any number of players sit round a convenient table so that a set of poker dice can be passed clockwise from player to player without disturbing the rolls. The game is best with 5-8 players.

The starting player is determined by highest die roll. Matching highest players re-roll to tie-break.

In turn, each player roles all / some / none of the dice at his discretion, usually hiding them from the other players' view. The starting player must roll all 5 dice. A player must state accurately how many dice he is rolling.

He then offers the (usually hidden) dice to the player on his left stating that they are some poker bid (excluding runs). This bid must be better than the offer made when he accepted the dice. (The starting player may name any bid).

The next player may either accept the dice and have his turn, or he may challenge. If challenging, the dice are exposed. If the hand equals or betters the stated bid, the recipient loses a life and the dice pass to the player on the recipient's left who starts again. If the hand is worse than the bid then the offerer loses a life and the recipient becomes the starting player.

The above procedure is often done in a confusing manner in order to make other players play harder.

Each bid need not be fully specified, in which case it is deemed to be the weakest possible bid meeting constraints stated. Better is a valid bid, as is Way better meaning Better than better, etc.

Should a player make an undercall, it is treated as Better. The undercall can be pointed out by any player at any point in the future of this hand, up to and including the exposure of a challenged set of dice.

When the bid reaches five aces (AAAAA), the player who needs to improve the bid must roll all and then may roll all / some / none of the dice twice more to achieve another five aces. If he achieves this then no-one loses a life and the next player starts a new hand, otherwise he loses a life.

Each player has three lives and is out of the game when he has lost them all. The winner is the final player with a life. As a concession to the first player to lose all three lives, he may get an extra life by standing and "barking like a dog" (a decent howl, not just saying 'woof'). Should a player decline the dog's life, it remains available for a subsequent player to claim on losing his last life.

If a player is absent when his turn comes, perhaps buying a round of drinks, he is deemed to have accepted the bid and to be passing the dice, unrolled, on as "Better". This is the Königswinter rule.

## Bids

There are no runs in liar dice. Getting progressively stronger, the types of bids are:

- Singleton

- A pair
- Two pairs
- Three of a kind
- Full house (3 of a kind plus 2 of a kind, the 3 being more valuable)
- Four of a kind
- Five of a kind.

Here follows an example, stating what was said and the least it can mean:

A pair

99QJT

A better pair

99KJT

A pair of Jacks

JJQT9

A pair of Jacks with no ten

JJKQ9

A bid is often just "better". You have to pay attention since after 3 or 4 "betters" in a row, it is easy to lose track of what level the bid has reached.

There is no obligation for a player to repeat his bid to clarify a situation for any player once the dice have been accepted by the recipient.

You must be truthful about the number of dice that you roll. You do not have to be truthful about which dice you are rolling. For example, if you accept a bid of "four of a kind" (implying 9999T) and it happens to be JJJJQ, then you can roll 1 die - stating "rolling one die - a singleton Queen" and actually roll one of the Jacks to trash the hand for the next player.

## Techniques

You do not have to look at the dice on your turn, though it is wise to do so.

Certain confusions are in standard usage, for example "three pairs of Jacks" actually means "three jacks" as the 3 pairs are J1+J2, J2+J3 and J3+J1! Similarly six pairs means four of a kind.

It is necessary to remember what the most recent bid is - even if this is determined by analysing "betters". It is advisable to remember exactly what dice you passed on to your left and how many dice each player has thrown since you saw them.

Cooperation with the players to your left and right is a good strategy, ganging up on the players on the far side of the table.

Mistakenly claiming a lower hand than is required. For example, if the previous player called "three threes" and your roll included four fives, you may mistakenly state that you have "three twos". Players will quickly remind you that you need to roll better than the "three threes", to which you respond, "Ok then, four fives". The next player will almost certainly call you on this "mistake".

## An example hand

In a four player ( [a], [b], [c] and [d] ) game.

- [a] rolls TTAQ9 and offers "a pair" meaning 99QJT.
- [b] rolls 3 dice (AQ9) to get KKTTJ and offers "two pairs" meaning TT99J.
- [c] rolls one die (J) to get KKTT9 and offers "better" meaning TT99Q.
- [d] rolls 3 dice (TT9) and gets KKKAJ and offers "two pairs, jacks on top" meaning JJ99T.
- [a] rolls no dice and offers "three queens". [b] challenges and loses a life as the dice are "three kings" which betters the bid of three queens.
- [b] thus misses a turn and [c] starts the next hand.

The above may not be good quality play, but it is a valid hand.

## Rules (Mexican)

The game starts by one person rolling 3 dice under a cup to keep the results hidden from the next player. (Some variations play with 2 dice). The roller then places the cup over his dice tells the next player what he rolled (but he may bluff). The next player may do one of two things:

- If he believes the roller, he simply takes the dice, and tries to roll something higher than the roller claimed. If he does not roll something higher, he must attempt to bluff the following player into thinking that he did or take a drink for another roll.
- If he does not believe the roller, the cup is lifted, revealing his hand:
  - If the roller was bluffing, he must take two drinks. Play is started over with no previous roll value to beat.
  - If the roller was telling the truth, the other player must take two drinks.

Play continues as the roll results (or the claims of those results) get higher and higher until someone finally rolls a "Mexican" or a bluff is called.

- The value of the roll is determined by forming a 3-digit number from the dice in order from highest to lowest. Thus a 3, 4, and a 5, has a value of 543. In order to beat that roll, the next player would have to roll a 544 or better.
- Three-of-a-kind is higher than all other rolls, except for the "Mexican" (read below). Three 5's can be said to have a value of 5550. Three ones can be said to have a value of 1110, making it higher than a 665.
- If you roll a 1, 2, and 3, this is considered a Mexican. It beats all other rolls. A Mexican is handled differently than the other rolls. When you roll a Mexican :
  - You must take the "1" out from under the cup, and place it in front of you. This means that you must have rolled at least one 1 in order to even bluff having a Mexican.
  - Now it is up to the next player to believe him or not :

- If he believes him, he must Place the dice on top of the rolling cup, flip the dice up in the air, flip the cup over, and catch the dice in the cup. If he succeeds in catching the dice in the cup, he rolls 1 dice and drinks that many... if he missed, he must roll 2 dice and drink the result.

- If he doesn't believe him, the roller must lift the cup and show if he was bluffing or not :

- a .If he was bluffing, the roller must catch the dice as described above, and drink accordingly.

- b. If he actually did roll a 1,2, & 3, the other player must catch the dice and drink as described above, except that the drinks are doubled. This means that he could possibly have to take 24 drinks!!! (if he misses the cup, and then rolls two 6s)

Note: The next player is not required to beat a Mexican on his next roll, even if he does not call bullshit. (But that should be obvious, since a Mexican is the highest roll possible)

Adding to the fun, the value of the dice is read through code, like this:

- 1 = Eye
- 2 = Train (as in "choo-choo train"... the "choo" phonetically similar to "Two")
- 3 = Half-Schmitty
- 4 = Pane (The 4 dots look like a Window pane)
- 5 = Titty (The 5 dots look like....well...)
- 6 = Devil (as in the Number of the Beast)

So:

- A 543 is read as "Titty, Pane, Half-Schmitty"
- A 654 is read as "Devil, Titty, Pane" , or as "Devil with a Titty Pane"
- A 655 is read as "Devil, Titty, Titty", or as "Devil with a pair of Tits"
- A 533 is read as "Titty, Half-Schmitty, Half-Schmitty", or simply as "Titty, Schmitty" (Two Half-Schmitties make a whole)

## Two-dice variations

In the two-dice version, only doubles are referred to by their code name:

- Two 1's = Tits
- Two 2's = Ducks
- Two 3's = Lines (as in lines of cocaine)
- Two 4's = Windows
- Two 5's = Tits in the windows
- Two 6's = Boxcars

In addition, there is a caveat that a "54" is called a "Betty Ford" (a reference to the former First Lady's mastectomy). One is not allowed to bluff when they roll a Betty Ford. If they are caught bluffing on such a roll, the penalty is usually 10 drinks. A Mexican becomes a roll of 2 and 1.

## See also

- Dudo - a Latin American Variety of Liar's dice
- Mia - a dice game with a similar emphasis on bluffing

Categories: Dice games

# Mia

*Mia* is a very old dice game and has probably survived due to its high entertainment value.

## Contents

- 1 Equipment
- 2 Play
- 3 Scoring
- 4 Strategy

## Equipment

Two dice and a flat bottomed container with a lid are needed. This game is played by any number of people but cannot be played alone.

## Play

All players start with three lives. The first player rolls the dice and keeps their value concealed in the container. The player then has three choices:

- Tell the truth and announce what has been rolled,
- Lie and announce a greater value than that rolled, or
- Lie and announce a lesser value.

The concealed dice are then passed to the next player in a clockwise fashion. The receiving player now has three options:

- Believe the passer and try to roll something better,
- Call the passer a liar and look at the dice. If the dice show a lesser value than that announced, the passer loses a life. However, if the dice show a greater or equal value, the challenger loses a life.
- Pass the dice, without looking, to the next player, as if it had just been rolled and announced. This relieves the original passer of all responsibility.

Each player must announce a value greater than the previous value announced or pass and take responsibility for the current value.

If Mia is either rolled or announced, the player in turn to lose a life loses two.

The game is won by the last player with at least one life.

## Scoring

Unlike most dice games, the value of the roll is not the sum of the dice. Instead, the highest die is multiplied by ten and then added to the other die. So a 2 and a 1 is 21 and a 5 and 6 is 65. The highest roll is 21 and called Mia. Next come all the doubles from 11 up to 66, and then back down again. The complete order of rolls is as follows:

21, 11, 22, 33, 44, 55, 66, 65, 64, 63, 62, 61, 54, 53, 52, 51, 43, 42, 41, 32, 31

## Strategy

The appeal of Mia resides primarily in the potential it affords for bluffing. But before deciding whether or not to bluff, one must, at the very least, have some idea of what constitutes a "good" roll, and this is not so straightforward as it may appear upon a casual glance at the preceding list of possible results. Since there are two ways to achieve any result that is not a double roll (e.g., a result of 43 can be achieved by rolling either a 3-4 or a 4-3), while doubles can only be made in one way, the "middle" roll in this game is not 62 but rather 54, despite the fact that ten possible results sit above and below the former, while there are twelve possible results above and eight below the latter. Nevertheless, owing to the "off-balance" structure of possible results, relative to possible rolls of two dice (21 possible results, 36 possible dice rolls), the likelihood that someone rolling a 62 (the numeric median result) will be beaten by a subsequent roller is only about 39 percent, while someone rolling a 52 (the statistical, or actual, median result) is facing exactly even odds. The complete list of possible results, and the approximate likelihood (x%) of each being beaten on a single subsequent roll, is as follows:

21 (0%)  
11 (5.6%)  
22 (8.3%)  
33 (11.1%)  
44 (13.9%)  
55 (16.7%)  
66 (19.4%)  
65 (22.2%)  
64 (27.8%)  
63 (33.3%)  
62 (38.9%)  
61 (44.4%)  
54 (50%)  
53 (55.6%)

52 (61.1%)

51 (66.7%)

43 (72.2%)

42 (77.8%)

41 (83.3%)

32 (88.9%)

31 (94.4%)

Categories: Dice games

## Mexico

*Mexico* is a dice game which is played elimination-style, in which several players agree to play a set number of rounds. After each round, one player is eliminated. When all players but one have been eliminated, the remaining player wins the game. Owing to its extremely simple play-structure, it is generally played as a method of gambling, such that the final remaining player wins the amount of money wagered by each person who was eliminated in earlier rounds.

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- 1 Equipment
- 2 Play
- 3 Scoring
- 4 Strategy and odds
- 5 Coming up "Mexico"
- 6 Ties

## Equipment

The game requires two dice and a surface upon which to roll them. Ideally, this surface will have a barrier of some sort on at least one side, off of which to bounce the dice during rolling and to prevent spillage.

## Play

At the start of play, all players wager a set amount of money, and at the end of each round, the player with the lowest roll puts a predetermined portion of that money into the pot. For instance, players might start out with twenty-five dollars each, having agreed in advance that each round will cost the loser of that round five dollars. The game ends when enough rounds have been played that only one player with any money remains, at which point the pot is his.



Thus, following the above example, three players with five betting units of five dollars each might play a minimum of ten and a maximum of fourteen rounds before a winner emerges.

Rolling order for the first round is determined by rolling one die, with the player rolling highest going first, followed by the player to his or her left, and so on until a full clockwise rotation has been completed. This marks the end of the round. At this point, whoever has rolled for the lowest result puts his or her portion of money into the pot, and another round begins. Regardless of who rolled last, the losing player becomes first to roll the dice on the following round. During regular play (i.e., when not rolling for lead spot), two dice are always used.

The lead player can roll the dice up to three times, and the amount of rolls he or she takes will determine how many rolls subsequent players may take in that round. However, only the last result of a player's turn counts as his or her final score for that turn, rather than the best result of two or three rolls. Thus, it is in the leader's interest not to roll the dice more than is necessary, as doing so will give opponents more opportunities to beat what might turn out to be a low result.

## Scoring

Two dice are used, and on each roll their separate numerical values are combined into a two-digit number, assigning a tens-column value to the higher of the two dice and a ones-column value to the lower. Thus, a roll of 4-2 would translate into a result of forty-two, a roll of 4-5 would be fifty-four, a roll of 6-5 would be sixty-five, and so on. There are two exceptions to this ranking scheme. One is doubles, which are ranked extra-numerically (6-6 ranks highest, with 5-5 just below it, and so on down to 1-1), and are worth more than any mixed roll. Therefore, the highest possible numerical value would be sixty-five, which itself would rank just below 1-1. The other exception to the rule of numeric value is a roll of 2-1: This counts for a score of twenty-one, the "Mexico" roll after which the game is named, and which is unbeatable, ranking above 6-6. Thus, the lowest possible roll is thirty-one. (As a point of interest, those familiar with the dice game Mia will notice that scoring in the two games is nearly identical.)

Although there are thirty-six possible results for any roll of two dice, there are only twenty-one meaningful results in the game of Mexico, since some rolls are cancelled by others. For instance, while 6-5 and 5-6 are considered different results in a statistical sense, they both equal sixty-five in this game. The possible results of any roll, and the ways it can be made, are as follows:

Result	Ways
31, 32	2 Ways
41, 42, 43	2 Ways
51, 52, 53, 54	2 Ways
61, 62, 63, 64, 65	2 Ways
any double	1 Way
21 ("Mexico")	2 Ways

## Strategy and odds

There is a moderate amount of strategy involved in Mexico, thanks to the fact that the first player to roll determines the conditions of play on a given round by re-rolling up to twice if he or she isn't satisfied with their initial result, while if a subsequent player is satisfied with a particular roll, that player is not forced to roll as many times as the leading roller. Thus, any player can stop after the first roll if they like (or anytime before the maximum role-allotment), even if his or her result isn't the highest yet rolled, which follows from the fact that in this game one is only concerned to avoid rolling lowest in a given turn. Accordingly, the worst thing someone can do as lead roller is roll three times, only to end up with a mediocre result. Therefore, unless one has rolled something very easy to beat, and unless the field of opponents is extremely narrow (particularly in the case in which only one opponent remains) it's best to satisfy oneself with an average or even slightly below-average single result.

The odds against any particular non-double result are 17 to 1, and the odds against each double are 35 to 1. However, because of the game's open rolling structure and idiosyncratic adding system, determining what is a good roll is somewhat counterintuitive, and the most important thing to know is what is the median result for a given roll (i.e., the result such that it is an even proposition whether the next roll is likely to beat it). The median first roll result, in terms of the likelihood of some other result beating it, is 54—not 62, although there are ten possible results above and below the latter—one of the game's oddities. Thus, the main thing to be kept in mind on the first roll is where one stands in relation to 54. However, a good result on the first roll is entirely different from a good result on the second or third, with the median result becoming more and more difficult to attain on each reiteration: The median results for the second and third rolls are, respectively, 64 and 1-1 (double ones).

Naturally, if one knows the likelihood that they will beat their own last roll by rolling again, they also knows the likelihood that someone following them will do the same. For example, if a player were to roll a 52 and then stop, that player would be looking at approximately a 61% probability that the next person will roll something equal to or better than that in one try. In other words, their next opponent would be a 3-to-2 favorite to beat or tie them. However, if the first player were to decide to roll again, that player would need to roll a 62 on their second turn, or a 64 on their third turn to maintain even this mediocre statistical position. Another result of 52 on a second roll would raise the likelihood of losing to or tying an opponent with two chances to roll to roughly 85%. This is of course a terrible position to be in, and the lead roller would almost certainly roll a third time, which would, in turn, give opponents more chances to beat him or her. If the lead roller were sufficiently hapless as to come up with yet another result of 52 on the third roll, that player's opponent would be have approximately a 95% likelihood of beating or tying that result in three attempts, making our first roller a 19-to-1 underdog for that round.

## Coming up "Mexico"

Further complicating matters is the special status of the twenty-one—or "Mexico"—result. If the lead roller should achieve a result of twenty-one on any of that player's three

allotted rolls, the dice pass immediately to the next player in line and the round proceeds as though that player were first to roll. In other words, the first roller is effectively out of danger of losing that round, and the second roller is given the option of rolling up to three times and setting the rolling limit for the remaining players. If the same thing happens again and the second roller (i.e., the new "lead" roller) succeeds in rolling "Mexico" in up to three attempts, then the third in line becomes the new "first," and so forth. If everyone except the last roller manages to roll "Mexico", then the last player is given three rolls to try to do the same; if that player fails he or she is required to feed the pot.

In addition to adjusting the advantage in the way just outlined, a "Mexico" roll doubles the stakes for that round, so that the round's loser puts two betting units into the pot rather than one. As to the question of whether the stakes should continue to double—more properly speaking, whether they should quadruple, and then octuple, in relation to the original stake—if more than one person rolls "Mexico" in a single round: Generally speaking, this is not the case. However, for the sake of clarity, this issue should always be decided and agreed-upon before play begins. (Players trying to decide which way to go on this issue ought to keep in mind that the odds against two "Mexicos" in a row are 215 to 4 (or 53 to 1; roughly a 1.85% likelihood), and against three in a row are 1288 to 8 (or 161 to 1; roughly a 0.61% likelihood), which are long, but certainly not astronomical, odds. The odds of rolling three "hardway" sixes or eights in a row in craps is 213 to 3 (roughly a 1.3% likelihood). Furthermore, these odds assume that each player is allowed only one roll; if "Mexico" is the result of two or three rolls, the likelihood of duplicating it rises substantially, in the same way that the median roll for a given round changes, depending on how many rolls the leader takes.)

Finally, if anyone besides the leader rolls twenty-one when the leader has not already done so, the roll is not considered "Mexico", and play proceeds as usual, although the player in question has still rolled for an unbeatable (though still tieable) result.

## **Ties**

Ties are only relevant if two or more players are tied for lowest place, and are therefore broken at the end of each round, since if many are playing, a tie early on may be a moot point by the time the round is over. Tie-breaking can be accomplished by having the tied parties play a "sub-round" of Mexico, with the loser of that round paying into the pot in the usual manner.

# Mr. Three

*Mr. Three* (a.k.a. Three Man, Hat Man) is a drinking game played with dice. The game is usually played with a larger group (6-15) of people than other drinking games and is designed so as to not require a great deal of participation from the players not directly involved in the current dice roll. This allows the game to be played in a relaxed atmosphere with a lot of people.

The game is played with two dice, often rolled on some kind of portable surface that holds the dice. A pie pan, beer tray, box top or some other similar device with a rolling area and edges to catch the dice are standard equipment, but often the dice are simply rolled on a table top. The current player rolls the dice, if the roll results in a drink then a drink is assigned accordingly, else the dice (and the pan, if one exists) are passed to the player on the left. The drinking rolls include:

- 7: The player to the right of the roller has to drink.
- 11: The player to the left of the roller has to drink.
- 10: This is a "social" roll. All players take a drink, often calling "social" together, or any other pre-determined word or phrase.
- DOUBLES: The roller assigns drinks up to the number on a single die to any other player or players (e.g. if double 4's are rolled, the roller may assign three drinks to player A and one drink to player B, or instead assign all four drinks to player C).
- 4 and 1 appearing: All players must touch their nose, or perform another pre-arranged task. The last person to do so must drink.
- 3 appearing on any die: "Mr. Three" (or "the Three Man") has to drink. Rolling a 1 and a 2 may also bring about this result.

The above rules are combined when appropriate:

- If a 4 & 3 are rolled, the player to the right AND "Mr. Three" must drink (if they are the same person then they must drink twice).
- If 5 & 5 are rolled, everyone must drink and the roller must assign 5 drinks to other players.

If none of the above scenarios apply - for instance, a player rolling a 2 and a 4 - the dice pass to the next player.

The first player in the game to roll a single 3 becomes "Mr. Three". From then on, "Mr. Three" must drink whenever a 3 is rolled. If "Mr. Three" rolls another single 3 on one of his rolls, the title is up for grabs again. However, if Mr. Three rolls double 3's then he is instantaneously unassigned and then reassigned the title, and must assign 3 drinks to other players.

The "stupidity rule" usually applies to the roller but may apply to anyone who is not following the rules. Whenever the rules are broken or a mistake is made, the infracting player must drink. Examples include:

- A 4 & 3 are rolled, the roller informs the player on the right to drink but forgets to inform Mr. Three to drink.
- One or both of the dice are tossed out of the pan, if it exists, or the dice are rolled off the table if a pan is not present.

- The roller attempts to lie and assigns a drink when one was not required.

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- 2 Midwest Rules
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## West Coast Rules

Before the game starts all participants roll a die. The first person to roll a 3 becomes the "Three Man" and starts the game. The Three Man can lose his title by either: (a) rolling a 3; or, (b) rolling a 2&1 (the sum of which equals 3). If A or B happen the roller gets to designate another player to be the new Three Man. Alternatively other players can automatically become Three Man by doing either of the following: Rolling double 3's or rolling a die off the table. That person then becomes the new Three Man and passes the dice to the next player. A player may continue to roll as long as one of these combinations is rolled:

- Doubles (except double 3's) - The roller has the opportunity to pass out drinks. He/she can do one of several things: (a) give one person the total number of drinks; (b) split the drinks between two people; (c) make one person roll the dice and drink the sum of the roll; or, (d) make two people roll a die with each drinking his/her roll. If doubles are rolled again during C or D the player who passed out the dice is forced to drink.
- 3 - When a three is rolled (on either dice), the Three Man must drink. If the Three Man rolls a 3, he may give the title of "three-man" to another player.
- 7 - Person to the left of roller drinks.
- 11 - Person to the right of roller drinks.
- 9 - Social. Everybody drinks.
- 1&1 (Snake Eyes) - Player gets to make up a rule. (Ex: Three man drinks every time any other player has to drink).
- 3&3 - Player automatically becomes Three Man.
- 2&1 - Three man drinks.

## Midwest Rules

Before the game starts, all players roll one die. The player with the highest roll becomes Three-man and starts the game. Players continue to roll as long as they match one of the four following combinations - Doubles, 7-11, 3, or 1 & x (explained below):

- Doubles - The roller gives one of the dice to another player who drinks the number which was rolled (i.e. If a pair of fives are rolled, the roller gives away 5 drinks). The roller also gives away the other dice to another player to roll. The receiver then rolls the dice and drinks the number indicated, unless they roll the original number in which case the drinks are returned to the player who rolled the doubles. (i.e. if a pair of fives were rolled, and the second player rolls a five, the first player must take five drinks).

- 7-11 - If the dice total seven, the person to the left drinks. If they add up to eleven, the person to the right drinks.

- 3 - When a three is rolled (on either dice), the three-man must drink. If the three-man rolls a 3, he may give the title of "three-man" to another player.

- 1 & 2 - Player may make a rule.

- 1 & 3 - "Minority" - The roller selects some attribute, and all players who match the description must drink. (i.e. All females must drink, everybody wearing a hat must drink, everybody named "Carl" must drink) But whatever attribute is selected, it may only apply to one half or fewer of the players. (i.e. in a game with 3 females and 2 males, it would be permissible to make all males drink, but not all females).

- 1 & 4 - "Finger on the Nose" - Players must put their finger on their nose. The last person to do so must drink.

- 1 & 5 - "Social" - All players take one drink.

If a player rolls a 2&4, 2&6, 4&5, or 4&6, he has "crapped out" and the dice are passed to the next player.

Here is a listing of all 21 possible combinations:

- 1-1 - Doubles - Give one person 1 drink, and make somebody else roll 1 dice and drink the amount rolled.

- 1-2 - Make a rule.

- 1-3 - Minority - Pick something that applies to 1/2 or less of the players, and make them drink. (i.e. Everyone wearing a hat, all females, all red-heads, anyone smoking a cigarette, all left-handed midget albino Eskimos wearing a silk hat, etc.). Also: 3-Man must drink

- 1-4 - Finger on Nose - As soon as you see this combination, you must put your finger on your nose. The last person to do so must drink.

- 1-5 - Social - Everybody must drink.

- 1-6 - 1+6=7 - Player on roller's left must drink.

- 2-2 - Doubles - Give one person 2 drinks, and make somebody else roll 1 dice and drink that many.

- 2-3 - 3-man drinks.

- 2-4 - NOTHING - pass dice to next player

- 2-5 - 2+5=7 - Player on roller's left must drink.

- 2-6 - NOTHING - pass dice to next player

- 3-3 - Doubles - Give one person 3 drinks, and make somebody else roll 1 dice and drink that many. Also: 3-Man takes TWO drinks

- 3-4 - 3+4=7 - Player on roller's left must drink. Also: 3-man drinks

- 3-5 – 3-man drinks
- 3-6 – 3-man drinks
- 4-4 - Doubles - Give one person 4 drinks, and make somebody else roll 1 dice and drink that many.
- 4-5 - NOTHING - pass dice to next player
- 4-6 - NOTHING - pass dice to next player
- 5-5 - Doubles - Give one person 5 drinks, and make somebody else roll 1 dice and drink that many.
- 5-6 -  $5+6=11$  - Player on roller's right must drink.
- 6-6 - Doubles - Give one person 6 drinks, and make somebody else roll 1 dice and drink that many.

## Statistics

Using the above "Midwest" version of the game, there are 24 out of 36 combination of the dice which yield "good" rolls (Rolls that allow player to roll again). This means that on each roll the player has a 66.6% (2 out of 3) chance of rolling a "good" roll. Using a simulation, it was found that the average turn last for roughly 3.5 rolls. Players will have turns with no good rolls 22.22% of the time. Streaks of at least 10 consecutive "good" rolls will occur 8.1% of the time. The odds of getting 72 consecutive "good" rolls in a row is 1 in 72,117,406, which is close to the odds of winning the jackpot in an average state lottery.

The number of drinks each player takes each turn depends on the number of players in the game.

- 2 players - each person takes 4.83 drinks per turn.
- 3 players - each person takes 5.88 drinks per turn.
- 4 players - each person takes 6.66 drinks per turn.
- 5 players - each person takes 7.16 drinks per turn.
- 6 players - each person takes 7.69 drinks per turn.
- 7 players - each person takes 8.07 drinks per turn.
- 8 players - each person takes 8.52 drinks per turn.

The number of drinks per turn goes up with the number of players involved in the game. But a more relevant question is how many drinks per minute each player will consume. The more players who are involved in the game, the longer each turn is going to take, which will slow the pace at which each player drinks. The exact amount of time each round lasts is largely affected by the pace at which the game is played. However, if we assume that each roll of the dice takes 10 seconds (a rather leisurely, but realistic, rate) a simulation yields the following number of drinks per minute:

- 2 Players - 3.22 Drinks per Minute
- 3 Players - 2.61 Drinks per Minute
- 4 Players - 2.22 Drinks per Minute
- 5 Players - 1.91 Drinks per Minute
- 6 Players - 1.71 Drinks per Minute
- 7 Players - 1.53 Drinks per Minute

- 8 Players - 1.42 Drinks per Minute

This rate can also be affected by "player-made" rules (after rolling a 1 & 2). These rules usually require a person to perform some action (or not perform some action), and a violation of these rules usually results in additional drinks being imbibed.

## Alternate Rules

- In some circles, "Mr. Three" can only lose his designation in three fashions.
  - If he rolls a three during his turn, at which time he may designate the new "Mr. Three."
  - If another player rolls one or both dice off the table (known as "sloppy dice"), at which time that roller becomes "Mr. Three."
  - If another player joins in while the game is in progress, that player instantly becomes "Mr. Three."
- Sometimes when a certain dice combination is rolled, often 4-1, the rolling player is then designated the Thumbmaster until another player rolls the same combination, and the designation is transferred.
- Chico 10-roll rule. If a player rolls the dice 10 turns in a row resulting in drinks for any opponent before throwing a roll that results in an end of turn and a passing of the dice to the next shooter, that player is allowed to pass the dice and make an additional table rule. (Rule example: Any shooter that rolls a ten must say "I'm sorry, Marc my lord." or drink 5.) This variation offers two new elements, additional rules to add some fun to the game, and a chance for the Three man to keep the dice and exact some revenge.
  - There may be up to three rules in place. If there are three rules already in place, the shooter chooses one to replace with their own rule. Also, instead of making a rule, they may choose to cancel an existing rule.
  - The Three man may choose to keep the dice if he rolls any "3" to obtain the 10 successful rolls, but must drink the penalty as if it was another player that rolled the dice.
  - Dice are passed to the next shooter upon making/abolishing a rule.
- Chico No Drink, Drink Double. If a player finishes their drink and manages to get drinks assigned with an empty cup, the number of drinks is doubled. Also, if the player leaves the table to grab a new drink, play continues with the player forfeiting their rolls until returning. This normally results in the absent player becoming Three man and accumulating a number of drinks upon returning to the table (or floor).
- Chico Alternate Doubles Rules
  - Roll Your Fate. When doubles are rolled, the shooter may choose to give the face value of the dice, or have the opponent roll their fate. (Instead of a player getting off easy with snake eyes, they may roll up to 12 drinks.) This works with splitting the dice.



- Split Dice. The dice may be split so that two opponents either drink the face value of the die, or roll their fate instead of one person getting both dice.
- You Roll, but You Drink. The shooter may decide to give the doubles as a roll your fate to one player and the resulting drinks to another opponent. Also works with splitting the dice.
- Sloppy Dice
  - If one or both dice land on the floor during a roll then "Sloppy Dice, drink twice, pass the dice to the right"

## The Hat

A common feature of the game is for the person who is currently "Mr. Three" to be easily identified by wearing a special hat of some sort. The hat is usually something silly, awkward, or otherwise embarrassing to wear. A common and readily available choice for the Three Man Hat is a torn open box from a twelve-pack of beer, worn like a helmet in some fashion. When the player loses the Three Man Status and passes it on to another player, the hat is also passed to the other player.

Categories: Dice games

## Passe-dix

*Passe-dix*, also called *passage* in English, is a game of chance using dice. It was described by Charles Cotton in *The Compleat Gamester* (1674) thus:

"Passage is a Game at dice to be played at but by two, and it is performed with three Dice. The Caster throws continually till he hath thrown Dubblets under ten, and then he is out and loseth; or Dubblets above ten, and then he passeth and wins."

Andrew Steinmetz, in *The Gaming Table: Its Votaries and Victims*, described it at greater length but somewhat confusingly (it is hard to see how anyone but the banker wins, and the suggestion that it was played at the crucifixion is of course sheer speculation):

"Passe-dix is one of the, possibly the, most ancient of all games of chance, is said to have actually been made use of by the executioners at the crucifixion of Jesus, when they parted his garments, casting lots, Matt. xxvii. 35.

"It is played with three dice. There is always a banker, and the number of players is unlimited. Each gamester holds the box by turns, and the other players follow his chance; every time he throws a point *under* ten he, as well as the other players, loses the entire stakes, which go to the banker. Every time he throws a point *above* ten (or passes ten -- whence the name of the game), the banker must double the player's stakes and the stakes of all those who have risked their money on the same chance. When the game is played by many together, each gamester is banker in his turn."

Categories: Dice games

## Petals Around the Rose

*Petals Around the Rose* is a lateral thinking mind game traditionally played with five dice.

It is played by computer program or with physical dice that are rolled by a *Potentate of the Rose*, a person who knows the secret of the game. For each roll of all dice, there is a single numerical solution. The players then attempt to arrive at this solution. If they do not, the Potentate of the Rose will tell it to them, and it is their task to figure out the solution for the next roll.

There are three, and only three, rules:

1. The name of the game is "Petals Around the Rose".
2. The name is important.
3. The answer is always an even number.

When a person discovers how the answer is computed, they become a Potentate of the Rose themselves.

A claim that often accompanies these instructions is that the smarter an individual, the greater amount of difficulty the individual will have in solving it. If such a statement is true, it may be attributed to the fact that "smarter" people tend to be more knowledgeable in a wide range of information which they may unnecessarily attempt to draw upon to solve the puzzle.

The solution is therefore relatively simple; the 'rose' is the center dot on any dice that has one, and the 'petals' are all dots around it. The die faces without center dots, including 2, 4, and 6, do not count, and colors have no relevance. Adding the sums of the petal dots yields the final number.

Alternately, one may sum the faces of odd dice, and then subtract the number of them. Thus, in a roll of 1,3,4,5,3, the odd faces sum to 12. There are 4 odd dice, so the solution is 12-4, or 8.

Much akin to magic tricks, however, an integral part of the puzzle is that those who have solved it are urged to keep the solution a secret.

Categories: Dice games

## Pig

*Pig* is a simple folk jeopardy dice game first described in print by John Scarne in 1945 (Scarne, John. 1945. *Scarne on Dice*. Harrisburg, PA: Military Service Publishing Co.). As with many games of folk origin, *Pig* is played with many rule variations. Commercial variants of *Pig* include Pass the Pigs™, Pig Dice™, and Skunk™. *Pig* is commonly used by mathematics teachers to teach probability concepts.

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## Basic Rules

Each turn, a player repeatedly rolls a die until either a 1 is rolled or the player holds and scores the sum of the rolls (i.e. the turn total). At any time during a player's turn, the player is faced with two decisions:

- *roll* - If the player rolls a
  - 1: the player scores nothing and it becomes the next player's turn.
  - 2 - 6: the number is added to the player's turn total and the player's turn continues.
- *hold* - The turn total is added to the player's score and it becomes the next player's turn.

The first player to score 100 or more points wins.

## Example Play

For example, the first player, Ann, begins a turn with a roll of 5. Ann could hold and score 5 points, but chooses to roll again. Ann rolls a 2, and could hold with a turn total of 7 points, but chooses to roll again. Ann rolls a 1, and must end her turn without scoring. The next player, Bob, rolls the sequence 4-5-3-5-5, after which he chooses to hold, and adds his turn total of 22 points to his score.

## Teaching Mathematics and Computer Science

*Pig* often serves as a simple, fun example for teaching probability concepts from the middle school level upwards.

*Pig* also provides many valuable exercises for teaching Computer Science in areas ranging from introductory courses to advanced machine learning material.

Todd W. Neller, Clifton G.M. Presser, Ingrid Russell, Zdravko Markov. Journal of Computing Sciences in Colleges, vol. 21, no. 6, pp. 149-161, June 2006.

A guide to computing optimal play for *Pig* and similar games is freely available as the NSF-sponsored project

## Optimal Play

Optimal play for 2-player *Pig* was computed by Todd W. Neller and visualized by Clifton G. M. Presser in 2001. The figure to the right visualizes optimal play. At any time, the relevant decision information includes the player's score, the opponent's score, and the turn total. Such information corresponds to a 3D point in the graph's space. If this point is inside the gray solid, the player should roll. Otherwise, the player should hold.

Details of the analysis are available from

- Todd W. Neller and Clifton G.M. Presser. The UMAP Journal 25(1) (2004), pp. 25-47.

Analyses of many 2-dice variants are available in:

- Todd W. Neller and Clifton G.M. Presser. The UMAP Journal 26(4) (2005), pp. 443-458.

## Rule Variations

Common rule variations include:

- Two dice: two dice are rolled instead of one.
  - Doubles 1s are bad: all points are lost.
  - All doubles are good: twice the amount added to the turn total, except double 1s add 25 points.
- Any number of dice ("Hog" variation): the player rolls only once per turn with an arbitrary number of dice.
- 6 is bad: a roll of 6 is treated as a roll of 1.

## Two-Dice Pig

This variation is the same as *Pig*, except:

- Two standard dice are rolled. If neither shows a 1, their sum is added to the turn total.
- If a single 1 is rolled, the player scores nothing and the turn ends.
- If two 1s are rolled, the player's entire score is lost, and the turn ends.

## Big Pig

This variation is the same as Two-Dice Pig, except:

- If two 1s are rolled, the player adds 25 to the turn total.
- If other doubles are rolled, the player adds twice the value of the dice to the turn total.

## SKUNK

Not to be confused with the commercial game Shunk (a.k.a. THINK) is a variation of Two-Dice Pig that is played with large groups. Rather than rolling in turn, all players begin the round standing. At any point in the round, a player may hold by sitting down. The round continues until a 1 is rolled, or all players have sat down.

Skunk is played in five rounds, and scoring is recorded in a 5-column table with columns labeled with the letters of the word "SKUNK". The first round score is entered in the "S"-column, the next in the first "K"-column, and so on. After five rounds, the highest-scoring player is the winner.

## Jeopardy Dice Games

*Pig* is one of a family of dice games (Reiner Knizia. *Dice Games Properly Explained*. Elliot Right-Way Books, Brighton Road, Lower Kingswood, Tadworth, Surrey, KT20 6TD U.K., 1999). For jeopardy dice games, the dominant type of decision is whether or not to jeopardize previous gains by rolling for potential greater gains. Most jeopardy dice games can be further subdivided into two categories: jeopardy race games and jeopardy approach games. In jeopardy race games, the object is to be the first to meet or exceed a goal score. In jeopardy approach games, the object is most closely approach a goal score without exceeding it

Categories: Dice games

## Shut the Box

*Shut the Box*, *Tric-Trac*, *Canoga* (or *Batten down the Hatches*) is a game of dice for one or more players, mostly played in a group of two to four (possibly for stakes, gambling). Traditionally a counting box is used with tiles numbered 1 to 9 where each can be discreetly covered with a hinged or sliding mechanism. Alternatively it could be played with a sheet of paper. Variations exist where the box has up to 10 or 12 tiles.

## Contents

- 1 Play
- 2 Rules
- 3 Variants
- 4 History
- 5 Trivia

## Play

On a turn a player repeatedly throws the dice to cover the tiles of the box, it ends when no tile can be covered on a throw and the players penalty score gets calculated. The goal is to cover all numbers, that is, "shut the box", which results in a penalty score of zero.

## Rules

A round consists of each player playing a turn. At the start of a player's turn all tiles are uncovered. Two dice are rolled and the corresponding tile of partitioned numbers of the sum are covered, e.g., the dice show a 2 and a 3, so 5, 1 + 4 or 2 + 3 tiles could be covered. If every numbered tile higher than 6 is covered you could use one die. The turn ends if no tile could be covered on a throw of the dice.

Several rounds are played till all but one surpass a penalty score of, e.g., 45.

## Variants

game ends:

- drop out over 45, where the uncovered numbers are added at the end of round to the player's penalty score and the lasting player wins.
- a round end winner system (gambling). If one is able to shut the box he wins immediately and gets the doubled stake of the others.
- 'long game' for two players. The first player tries to shut the box, where on the end of the turn the second player attempts to uncover the already covered numbers using the same rules. On a double throw the player gets an extra turn. The first one who reaches the goal wins.

penalty point scoring:

- are added together, e.g., uncovered 1, 5 and 9 equal 15
- direct read from the uncovered numbers instead of summing them, e.g., uncovered 1, 5 and 9 equal 159.

cover rules:

- any partitioned number could be turned down, e.g., if you throw a 6 and 3 any of the following sets could be turned down: 9; 1 + 8; 2 + 7; 3 + 6; 4 + 5; 1 + 2 + 6, ..., etc.
- the tiles of the sum or the single values of the dice are turned down.
- maybe enforce the single die option when the sum of the remaining numbers is less than six (partitioned number mode).

## History

The origin is not known but there exist references from at least the 19th century to the Normandy (northern France) or the Channel Islands (English Channel, United Kingdom), others also mention fur trappers from the Hudson's Bay Company. The game has been popular among sailors and fishermen.

Evidence exists in England from the middle of the 20th century and it is quite sure that it did not originate there. Timothy Finn writes in *Pub Games of England* that it came from the Channel Islands in 1958 by a Mr. 'Chalky' Towbridge. It is said that versions have also been played in Barotseland (Zambia, central Africa). The game is also popular in the beer bars of Thailand.

## Trivia

- Shut the Box was the basis of a television game show called High Rollers.
- 

Categories: Dice games

## Sic bo

*Sic bo* is a gambling game of Chinese origin. It is also known as Tai Sai or Dai Siu, meaning Big Small. It is played with three standard dice that are shaken in a basket or plastic cup. (Traditionally in Asia, the dice were shaken on a small plate covered with a bowl, which was then lifted to reveal the roll).

Outcomes are based on the combinations that come up on the three dice. Winning variations can yield a pay-off ranging from 1:1 to 180:1. Payoff combinations are listed on a roulette-style table top that is often lighted from underneath in winning areas of the layout to indicate winning combinations.

The player can make any number of bets on the Sic bo table. The most common bets are "Big" (the sum total of the three dice will be 11 through 17) and "Small" (total 4-10). Other bets are on specific three-number totals (with varying odds from 5:1 to 50:1), on specific

two-number combinations, or on single-number bets (one pays 1:1, two pays 2:1, three pays 3:1; in some casinos three pays as high as 12:1).

The game of Chuck-a-luck (also called "Birdcage") is a variation of this game which usually features only the single-number bets, sometimes with an additional bet that pays off 30:1 (or thereabouts) for "any triple," where all three dice are the same number. The name "birdcage" refers to the device in which the dice are kept, which resembles a wire-frame bird cage, that pivots about its center. The dealer rotates the cage end over end, with the dice landing on the bottom. This variation was once common in Nevada casinos, but now it is a rarity, frequently replaced by Sic bo.

## History

Sic bo originated in ancient China and is still a popular Asian casino game. It was brought into the US by Chinese immigrants in the early 20th century. It can be found in most American casinos, and is widely played in casinos in Macau where it is known as Dai Siu.

Categories: Dice games

## Tablero da Gucci

*Tablero da Gucci* (usually referred to simply as *Tablero*) is a drinking game adapted from an Italian Renaissance gambling game, *Tablero de Jesus* (pronounced as in Spanish; hey-ZOOSE).

### Contents

- 1 History
- 2 Basic Rules of the Game
  - 2.1 Object of the Game
  - 2.2 Equipment (for playing with beer)
  - 2.3 Starting the Game
  - 2.4 Playing the Game
  - 2.5 Lining Up Glasses
  - 2.6 The Queen's Number
  - 2.7 Ending The Game
  - 2.8 The Toast Round
- 3 Tournament Play
  - 3.1 Scoring
  - 3.2 Other Rules
- 4 Important Notes

## History



This form of the game was conceived at a party held by some people who belonged to a medieval recreation group, the Society for Creative Anachronism. One of their number reasoned rather brilliantly that it would be a lot more fun to play this game with shots of beer than with coins. They dubbed it Tablero da Gucci, after the family name of the SCA household of some of the initial players.

## **Basic Rules of the Game**

### **Object of the Game**

The object of this game is to make your opponent run out of beer (or whatever else is being played with) before you do.

### **Equipment (for playing with beer)**

- One opponent (someone else who wants to play)
- 4 equal sized containers of something good to drink (bottles or cans of beer normally)
- Seven shot glasses, not necessarily of equal sizes.
- 2 six-sided dice
- A board with a 7 x 7 grid of squares.

The board should be made out of something that will stand up to being doused with beer on a fairly regular basis. Cloth is highly recommended.

### **Starting the Game**

Place your board on a flat surface. Three of the seven glasses are placed on each base line (the horizontal row closest to the player) of the board starting from the right hand corner nearest each player. The seventh glass is placed in the exact center of the board.

Find a spectator and have them roll the two dice. This is called the 'Queen's number' and will be important later.

Each player fills the three glasses on their base line from their supply of beer. Then, each player rolls one die. The player who rolls the highest number gets to choose who goes first. That player then takes the center glass, places it on their own base line and has control of the dice.

### **Playing the Game**

The current player rolls the pair of dice.

Seven, eleven and twelve are pass numbers. If a player rolls any of these numbers, their turn ends and they must pass the dice to their opponent.

When the two dice have been rolled the player must move one glass, for each die, the number of spaces equal to the die. Thus if a 2 and a 4 are rolled, one glass must move forwards 4 spaces, and another glass (not the same one) must move forwards 2. If there aren't enough spaces to move a glass the full distance rolled, that glass may not be moved. If the player cannot move two glasses (one for each die), then their turn ends and they must pass the dice to the other player.

## **Lining Up Glasses**

The object of the game is to move the glasses to form a line. Horizontal and diagonal lines are permitted. For horizontal lines, six or seven glasses must be lined up in an unbroken row. For diagonal lines, the linee must contain all seven glasses from corner to corner on the board.

When a line is made, the player who made it gets to "pull" the line. The player who made the line *must* drink at least half of the glasses in the line. For a row of 6, this is 3 glasses. For a row of 7, this is 4 glasses.

The remainder of the glasses in the row are then distributed by the "pulling" player as they see fit. Glasses may be given to the opponent, spectators, random passerby, or may be consumed by the "pulling" layer itself. It is customary to give your opponent at least one glass.

The "puller" then places the empty glasses on the base line of their opponent. The opponent must then fill the empty glasses from their own stock of beverage. After doing so, the "puller's" turn ends and control of the dice shifts to the opponent.

## **The Queen's Number**

If a Queen's Number is rolled, the player is allowed to choose one glass from anywhere on the board, toast "To the Queen." They then drink the contents of the glass and place it on their opponent's base line. The opponent must then fill the glass from their supply. The person who rolled the Queen's Number retains control of the dice.

If you do not "call" the Queen's Number before you pick up the dice to roll again, your opponent may then call it, whereupon they gain the privilege of drinking the toast. They then place the glass on the base line of the person who rolled, who must then fill it from their own supply. The rolling player does, however, retain the dice and continue with their turn. If the opponent does not call Queen's Number before the dice are rolled again, then the opportunity is lost for both players.

## **Ending The Game**

If you are required to fill an empty glass, and are unable to because your supply of beer has run out, you lose.

The only exception to this is if a player wins as a result of rolling (and drinking) the Queen's Number. In this event, the player drink the toast as normal. If the opponent cannot fill the glass, the glass still goes on the opponent's base line, but the player who drank the toast must then fill the empty glass from their own supply. As usual, the rolling player still retains control of the dice.

## **The Toast Round**

After the last line has been won, the winner fills whatever glass their opponent was not able to fill and declares the toast round. The winner generally takes half of these glasses for themselves, and passes the rest around for the toast. The winner makes a toast, every one drinks up, and then place the glasses back on the board.

The winner now has control of the board and may take on other challengers if they so wish.

## **Tournament Play**

Tablero da Gucci can be played in tournaments using the guidelines given here.

## **Scoring**

- The winner gets 2 points and the loser gets 1 point.
- The game was a "skunk" (the winner did not have to open his second beer) then the winner gets 3 points and the loser get no points.
- If the game was a "Royal Skunk" then the winner gets 4 points and the loser gets negative 1 points. A "Royal Skunk" occurs when a player goes through the entire game without ever having to fill even a single glass, with the exception of the three or four glasses they fill to start the game.

At the end of the tournament the person with the most points wins.

## **Other Rules**

You are not allowed to play against the same person twice in a row during tournament play. If you do, then the second game does NOT count towards your tournament score.

## **Important Notes**

Although this game was designed for use with alcohol, it works just as well with soda pop, small pieces of candy (great for playing the game with children), or even water. The original game it is based on used coins, which are another option if players wish to compete for money rather than inebriation. These games generally do not count for tournament play.

A player may have a designated drinker if they so desire. If this is done during a tournament, then the player *must* use the same designated drinker for the entire tournament, otherwise they are disqualified.

It is **strongly** recommended that this game *not* be played with hard alcohol. Pulling a line requires the player to drink a minimum of 3 shots of alcohol at once. For a 180 pound adult, this would place their blood alcohol content above 0.08%, which is considered legally impaired almost everywhere in the world. The chances of a player suffering alcohol poisoning as a result of this are extremely high, with a significant risk of death.

In any case, individual players assume all responsibility for choosing to incorporate alcohol in the game and should take all of the usual precautions, such as avoiding the operation of all vehicles, stopping when they've reached their limit and so forth.

Tablero is supposed to be a fun game. Play safely.

Categories: Dice games

## Threes

*Threes* (or *3s*) is a gambling game, played with five dice where the goal is to get the lowest score in any given round. Because it can be played for any amount of time and requires almost no equipment, it has become very popular as an illegal street game, primarily played in makeshift games organized in alleys or living rooms.

### Rules of the game

Players gather in a circle with five dice. To establish who plays first, each player rolls one die at the start of the game. The player with the highest roll is given the first turn. In the event of a tie roll, the players who tied re-roll and repeat this process until there is a winner.

Each player throws an equal ante amount into the middle of the circle (usually one dollar) and players take their turns in a clockwise order.

The object of the game is to achieve the lowest total score after adding up the values of all five dice, counting threes as zeroes.

A player rolls all five dice and decides which ones to keep. The player can keep as many as he or she wishes, but must keep at least one die each roll. Once a die has been kept, it is out of play for the rest of the turn. This means that a player can have at most five rolls in a turn.

The best possible score is a 0, which happens when a player rolls 3-3-3-3-3, but if any player rolls 6-6-6-6-6, they win instantly and no one else may roll for the remainder of that round.

In the event of a tie, the players who tie throw in an additional ante amount (a dollar, or whatever the bet amount was) and roll-off for the entire pot. The player to roll first in this roll-off is once again decided by rolling one die for high score, as was done when the game started.

The player that wins the round takes all of the money from the middle and a new round starts, with the winner rolling first.

Categories: Dice games

## Under Over

The *Under Over* game is a dice game played at various festivals. The object of the game is predict whether the dice will roll to a total of under 7 or over 7 or at 7.

### Game Setup

The game is typically played with 2 wooden dice. The game attendant then drops the dice in the dice chute.

### How to Play

A player typically places a wager on one of three spaces. These spaces are:

- Under 7 (Usually pays 1-1)
- Over 7 (Usually pays 1-1)
- 7 (Usually pays 2-1)

Once all the bets have been placed the attendant closes the betting board with a wire screen and then puts the dice through the chute. Players then get payed accordingly.

### Variations

Some times, the game uses foam dice and players throw 2 of them in the middle.

Categories: Dice games

## Yahtzee

*Yahtzee* is the trademarked name of a popular dice game made by Milton Bradley (now owned by Hasbro). The object of the game is to score points by rolling certain combinations

of numbers with five dice. The player must roll at least three of a kind of all six die face values (or an equal to or greater score of other combinations so that the total is at least 63 points) to achieve a bonus, and must further attain certain Poker hands such as four of a kind, full house, and straight. A *Yahtzee* is five of a kind.

## Contents

- 1 Overview of the Rules
  - 1.1 Upper Section
  - 1.2 Lower Section
  - 1.3 Game Play
  - 1.4 Yahtzees and bonus chips
  - 1.5 Game Played Solitaire
- 2 History
- 3 Evolution of the Game Packaging
  - **3.1 1961**
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  - **3.4 1973**
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## Overview of the Rules

The Yahtzee scorecard contains thirteen boxes divided between two sections: The Upper Section and The Lower Section

## Upper Section

In the upper section, each box is scored by summing the total number of die faces matching that box and multiplying them by the box number. For example if a player were to roll four "twos", the score would be recorded as 8 in the twos box (4 x 2). The player attempts to obtain at least a three-of-a-kind for each of the six die faces (for a total of 63 points). If this point total is achieved or exceeded, the player receives a bonus of 35 points for the upper section..

## **Lower Section**

The lower section contains a number of poker-themed combinations with specific point values { three-of-a-kind (sum all dice), Four-of-a-Kind (sum all dice) , full house 25pts, small straight 30pts, large straight 40pts, five-of-a-kind (Yahtzee) 50pts, and chance (sum all dice) }. Chance acts as discard box for a turn that will not fit in another category.

## **Game Play**

On each turn, a player gets three rolls of the dice out of the cup. He or she can save any dice that are wanted to complete a combination and then re-roll the other dice. After the third roll, the player must find a place to put the score. If the resulting combination of dice will not fit in any unused scoring category, the player must place a "zero" in one of the unused boxes.

## **Yahtzees and bonus chips**

A Yahtzee occurs when all five dice have the same value during a player's turn. Yahtzee is the most difficult combination to throw in a game and has the high score of 50 points. If a player scores one or more additional yahtzees during the same game, that player is awarded bonus points and given bonus chips that correspond to each additional Yahtzee that a player rolls. Bonus yahtzees are worth 100 points each. Bonus chips are only awarded for subsequent Yahtzees if the first Yahtzee was placed in the 50pt Yahtzee score box in the lower section. Additional Yahtzees may be used as jokers in the lower section provided that the corresponding upper section box has been filled. For example, if a player rolled out five threes (a Yahtzee in the threes), the player could only use it as a joker in the lower section if he or she already had a score in the "threes" box in the upper section. If the "threes" box was still open, the player must score 15 in the threes (sum of five threes). (The original game rules released in 1956 contain a discrepancy in this rule. The booklet states that additional Yahtzees must be used as Jokers in the lower section and does not allow for their use in the upper section. However, the booklet also declares the highest possible score as 375 which would require the placement of Yahtzees in the upper section. This problem was corrected when the game was re-copyrighted in 1961.)

The each player's total score is calculated by summing all thirteen score boxes. The maximum raw score (without Yahtzee bonus scoring) is 375.

## **Game Played Solitaire**

Yahtzee may also be played solitaire with the player attempting to reach the maximum possible score of 375. This form of this game has been solved by computer analysis. The

computer program can tell the player what score choice to make for any possible configuration of the dice and for any possible partially filled score card. The program maximizes the possible player score. Computer programs, however, have not solved the game as it is played against other players.

## History

The overall concept of Yahtzee traces its roots to a number of traditional dice games. One is the English game of Poker Dice and another is the Puerto Rican game Generala played with five dice and categories like poker hands and triples or quads.

According to Hasbro, the game was invented in 1954 by an anonymous Canadian couple, and called "The Yacht Game" because they played it on their yacht with their friends. Two years later they asked toy and game entrepreneur Edwin S. Lowe if he would make up some sets to be given as gifts to their friends who enjoyed the game. Lowe perceived the possibility of marketing the game, and acquired the rights to the game from the couple in exchange for 1,000 gift sets. This story is repeated by E.S. Lowe in the 1973 book *A Toy is Born*.

Lowe changed the name to "Yahtzee" and filed it as a trademark with the U.S. Patent Office on April 19, 1956. The first commercial usage of the name Yahtzee was a few weeks earlier on April 3. Lowe classified his product as a "Poker Dice Game".

He initially had trouble selling the game commercially, since the rules and appeal were not easily conveyed in an advertisement. Eventually he had the idea of organizing "Yahtzee parties" where people could play the game and thereby gain a firsthand appreciation for it. The idea was successful, and enthusiasts quickly popularized the game through word of mouth. Between 1956 and 1961, the game's advertising slogan was changed from:

**The Game That Makes You THINK While Having FUN to  
The FUN Game That Makes THINKING fun!**

The game and its contents were copyrighted by E.S. Lowe in 1956, 1961, 1967, and 1972. In 1973, Milton Bradley purchased the E.S. Lowe Company and assumed the rights to produce and sell Yahtzee. During Lowe's ownership over 40 million Yahtzee games were sold in America and around the globe. The game has maintained its popularity. According to current owner Hasbro, fifty million Yahtzee games are sold each year.

Over time, the Yahtzee logo has taken several forms. The original version of the Logo was used throughout the entire period that the game was produced solely by the E.S. Lowe company. After 1973, the logo changed various times. This logo is found on the scorecards and the game boxes. (See image of the logos in the "Rules" section above)



## Evolution of the Game Packaging

Over the time period from the first sale in 1956 to the present day, many changes have been made to the packaging and contents of the game. This is a brief overview of the evolution of the packaging from 1956 to 1982. The dates here denote the latest copyright date on each version of the game. Often the latest copyright date is only stated on the instruction booklet, not on the box. All boxes prior to 1973 only have the original copyright date of 1956. (note: This is not necessarily a comprehensive list of all possible combinations. This lists the most common varieties; other combinations of specific game parts may have been sold.)

Deluxe edition games have also been sold since the early 1960's. These editions will not be explored in detail, but will be briefly discussed here. The 1961 and 1967 deluxe editions appear more or less like the illustration on the left. The deluxe edition was sold in the early 1970's with a thin molded plastic packaging around the dice and chips. A 1997 Deluxe Yahtzee was sold and has a leather padded cup, a padded dice tray, and glitter-filled transparent dice. A deluxe edition folio is currently sold. These games represent a more expensive alternative to the ever-popular standard Yahtzee game.

==1956== (pictured above)

Box: Rectangular box with the word "Yahtzee" in the center, professor logo on the right, and a cup with rolling dice on the lower part. The upper left-hand corner of the box has the phrase "It makes you think while having fun." Beneath the large word "Yahtzee" are the phrases "An exciting game of skill and chance" and "Fun for the entire family!" The underside of the box is blank tan cardboard. The contents are housed in a green cardboard holder with folded cardboard parts holding the dice and chips.

Dice: Five transparent red dice with white dots

Pencils: Two short yellow pencils

Chips: Twenty chips, ten red and ten yellow

Score Pad: Score pad printed in black and white with professor logo in the upper left hand corner

Cup: Brown imitation leather-paper cup with an upper and lower metal rim, no identifying label.

Instruction Manual: Yellow manual "How to play Yahtzee" with professor logo beneath and the phrase "The game that makes you think while having fun." Copyrighted 1956

### 1961

Box: Rectangular box with the word "Yahtzee" in the center, professor logo on the right, and a cup with rolling dice on the lower part. The upper left-hand corner of the box has the phrase "The fun game that makes thinking fun!" Beneath the large word "Yahtzee" are the phrases "An exciting game of skill and chance" and "Fun for the entire family!" The underside of the box is blank tan cardboard. The contents are housed in a green cardboard holder with folded cardboard parts holding the dice and chips.

Dice: Five transparent red dice with white dots

Pencils: Two short yellow pencils

Chips: Twenty chips, ten red and ten yellow

Score Pad: Score pad printed in black and white with professor logo in the upper left hand corner

Cup: Brown imitation leather-paper cup with an upper and lower metal rim. On the cup is a rectangular sticker with the word "Yahtzee", the professor logo, and the phrase "The fun game that makes thinking fun!"

Instruction Manual: Yellow manual "How to play Yahtzee" with professor logo beneath and the phrase "The fun game that makes thinking fun!" Copyrighted 1956, 1961

## 1967

A:

Box: Rectangular box with the word "Yahtzee" in the center, professor logo on the right, and a cup with rolling dice on the lower part. The upper left-hand corner of the box has the phrase "The fun game that makes thinking fun!" Beneath the large word "Yahtzee" are the phrases "An exciting game of skill and chance" and "Fun for the entire family!" The underside of the box is blank tan cardboard. The contents are housed in a green cardboard holder with folded cardboard parts holding the dice and chips.

Dice: Five opaque red dice with white dots

Pencils: Two short yellow pencils

Chips: Twenty chips, ten red and ten yellow

Score Pad: Score pad printed in black and white with professor logo in the upper left hand corner

Cup: Brown imitation leather-paper cup with an upper and lower metal rim. On the cup is a rectangular sticker with the word "Yahtzee", the professor logo, and the phrase "The fun game that makes thinking fun!"

Instruction Manual: Yellow manual with thick red central stripe. It is entitled "How to play Yahtzee" with professor logo beneath and the phrase "The fun game that makes thinking fun!" Copyrighted 1956, 1961, 1967

B:

Box: Rectangular box with the word "Yahtzee" in the center, professor logo on the right, and a cup with rolling dice on the lower part. The upper left-hand corner of the box has the phrase "The fun game that makes thinking fun!" Beneath the large word "Yahtzee" are the phrases "An exciting game of skill and chance" and "Fun for the entire family!" The E.S. Lowe logo is in the upper left hand corner and "for ages 8 to adult" is printed on the lower right hand corner. The underside of the box is black cardboard. The contents are housed in a green cardboard holder with a molded piece of thin clear plastic holding the dice, chips, and pencils.

Dice: Five opaque red dice with white dots

Pencils: Two short yellow pencils

Chips: Twenty chips, ten red and ten yellow

Score Pad: Score pad printed in black and white with professor logo in the upper left hand corner

Cup: Brown imitation leather-paper cup with a lower metal rim. The upper rim is not reinforced. On the cup is a rectangular sticker with the word "Yahtzee", the professor logo, and the phrase "The fun game that makes thinking fun!"

Instruction Manual: Yellow manual with thick red central stripe. It is entitled "How to play Yahtzee" with professor logo beneath and the phrase "The fun game that makes thinking fun!" Copyrighted 1956, 1961, 1967

C:

Box: Rectangular box with the word "Yahtzee" in the center, professor logo on the right, and a cup with rolling dice on the lower part. The upper left-hand corner of the box has the phrase "The fun game that makes thinking fun!" Beneath the large word "Yahtzee" are the phrases "An exciting game of skill and chance" and "Fun for the entire family!" The E.S. Lowe logo is in the upper left hand corner and "for ages 8 to adult" is printed on the lower right hand corner. The underside of the box is black cardboard. The contents are housed in a green cardboard holder with a molded piece of thin clear plastic holding the dice, chips, and pencils.

Dice: Five opaque red dice with white dots

Pencils: Two short yellow pencils

Chips: Twenty chips, ten red and ten yellow

Score Pad: Score pad printed in black and white with professor logo in the upper left hand corner

Cup: Brown printed paper cup with a lower metal rim. The upper rim is not reinforced. The cup is printed to look like leather and has the word "Yahtzee", the professor logo, and the phrase "The fun game that makes thinking fun" within a red football-shaped area.

Instruction Manual: Yellow manual with thick red central stripe. It is entitled "How to play Yahtzee" with professor logo beneath and the phrase "The fun game that makes thinking fun!" Copyrighted 1956, 1961, 1967

## 1972

A:

Box: Rectangular box with the word "Yahtzee" in the center, professor logo on the right, and a cup with rolling dice on the lower part. The upper left-hand corner of the box has the phrase "The fun game that makes thinking fun!" Beneath the large word "Yahtzee" are the phrases "An exciting game of skill and chance" and "Fun for the entire family!" The E.S. Lowe logo is in the upper left hand corner and "for ages 8 to adult" is printed on the lower right hand corner. The underside of the box is black cardboard. The contents are housed in a green cardboard holder with a molded piece of thin clear plastic holding the dice, chips, and pencils.

Dice: Five opaque red dice with white dots

Pencils: Two short yellow pencils

Chips: Twenty chips, ten red and ten yellow

Score Pad: Score pad printed in black and white with professor logo in the upper left hand corner

Cup: Brown molded plastic cup. The has a sticker with the word "Yahtzee", the professor logo, and the E.S. Lowe logo.

Instruction Manual: Yellow manual with thick red central stripe. It is entitled "How to play Yahtzee" with professor logo beneath and the phrase "The fun game that makes thinking fun!" Copyrighted 1956, 1961, 1967, 1972

B:

Box: Rectangular box with the word “Yahtzee” in the center, professor logo on the right, and a cup with rolling dice on the lower part. The upper left-hand corner of the box has the phrase “The fun game that makes thinking fun!” Beneath the large word “Yahtzee” are the phrases “An exciting game of skill and chance” and “Fun for the entire family!” The E.S. Lowe logo is in the upper left hand corner and “for ages 8 to adult” is printed on the lower right hand corner. The underside of the box is black cardboard. The contents are housed in a green cardboard holder with a molded piece of thin clear plastic holding the dice and chips.

Dice: Five opaque white dice with black dots

Pencils: Two short yellow pencils

Chips: Twenty chips, ten red and ten yellow

Score Pad: Score pad printed in black and white with professor logo in the upper left hand corner

Cup: Brown molded plastic cup. The cup has a red and yellow sticker with the word “Yahtzee”, the professor logo, and the E.S. Lowe logo.

Instruction Manual: Yellow manual with thick red central stripe. It is entitled “How to play Yahtzee” with professor logo beneath and the phrase “The fun game that makes thinking fun!” Copyrighted 1956, 1961, 1967, 1972

## 1973

Box: Rectangular box, smaller than before. Box top is predominately yellow with large black football-shaped logo with the word Yahtzee. Below that logo are the phrases “An exciting game of skill and chance; fun for the entire family.” Below is a drawing of dice, chips, a cup, a score pad, and pencils. E.S. Lowe and Milton Bradley logos are printed in the lower left hand corner. The underside of the box is blue cardboard. The contents are housed in a light-blue cardboard holder with a molded piece of thin clear plastic holding the dice, chips, and pencils.

Dice: Five opaque white dice with black dots

Pencils: Two short yellow pencils

Chips: Twenty chips, ten red and ten yellow

Score Pad: Score pad printed in black and white with professor logo in the upper left hand corner

Cup: Blue molded plastic cup. The cup has a red and yellow sticker with the word “Yahtzee.”

Instruction Manual: Yellow manual with thick red central stripe. It is entitled “How to play Yahtzee” with professor logo beneath and the phrase “The fun game that makes thinking fun!” Copyrighted 1956, 1961, 1967, 1972

## 1978

Box: Rectangular box, same size as 1973. On the box top is a photo of a hand rolling dice over chips and a scorecard in front of a tan background. The word “Yahtzee” is overlaid on the photo along with the phrases “An exciting game of skill and chance; fun for the entire family.” The bottom of the box is white cardboard. The contents are housed in a light-blue cardboard holder with a molded piece of thin clear plastic holding the dice and chips.

Dice: Five opaque white dice with black dots

Pencils: none provided

Chips: Twenty chips, ten red and ten yellow

Score Pad: Score pad printed in black and white with the word “Yahtzee” printed in the upper left hand corner. The Yahtzee logo is now a black flat sided oval with the word “Yahtzee” in white in the same font as on all previous logos.

Cup: Blue molded plastic cup. The cup has a red and yellow sticker with the word “Yahtzee.”

Instruction Manual: Manual with the same photo as on the box top. It is entitled “Yahtzee Instructions”

## 1980

Box: Rectangular box, same size as 1973. On the box top is a photo of a hand rolling dice over chips and a scorecard in front of a red background. The word “Yahtzee” is overlaid on the photo along with the phrases “An exciting game of skill and chance; fun for the entire family.” The word “Yahtzee” is now in a different font. The letters are angular instead of calligraphic. The bottom of the box is white cardboard. The contents are housed in a light-blue cardboard holder with a plastic bag holding the dice and chips.

Dice: Five opaque white dice with black dots

Pencils: none provided

Chips: Twenty chips, ten red and ten yellow

Score Pad: Score pad printed in black and white with the word “Yahtzee” printed in the upper left hand corner in the same angular font as is pictured on the front cover.

Cup: Blue molded plastic cup. The cup has no sticker.

Instruction Manual: Manual is the same as in 1978.

## 1982

Box: Rectangular box, same size as 1973. On the box top is a photo of a hand rolling dice over chips and a scorecard in front of a red background. The word “Yahtzee” is printed at an angle above the photo with the phrases “Great shakes it’s yahtzee!, your favorite game of luck and strategy. The word “Yahtzee” is again in a different font. The letters are plain instead of angular and the “Y” is larger than the rest of the letters. The bottom of the box is white cardboard. The contents are housed in a yellow cardboard holder with a plastic bag holding the dice and chips.

Dice: Five opaque white dice with black dots

Pencils: none provided

Chips: Twenty chips, ten red and ten yellow

Score Pad: Score pad printed in black and white with the word "Yahtzee" printed in the upper left hand corner in the same font as is pictured on the front cover.

Cup: Red ridged plastic cup. The cup has no sticker.

Instruction Manual: Manual is printed in maroon and white with a picture of dice being rolled out of the cup. It is entitled "Yahtzee Instructions."

## **Related Games**

A number of related games under the Yahtzee brand have been produced. These include: Triple Yahtzee (1972), Word Yahtzee (1978), Challenge Yahtzee (1974), Casino Yahtzee (1986), Jackpot Yahtzee (1980), Showdown Yahtzee (1991), Yahtzee Texas Holdem' (2005), and Yahtzee Deluxe Poker (2005). Various Deluxe Edition Yahtzee games have been sold since the early 1960's, and a 40th anniversary edition was produced in 1996. A CD-rom computer version was first released in 1996. A version of Travel Yahtzee was also released as part of Milton Bradley's line of travel games. There are also several electronic versions of the game such as a handheld LCD version, and a cell phone version called Yahtzee Deluxe, which features the original rules along with several other modes.

The 1970s TV game show Spin-Off was based on the game. Another, similarly short-lived, TV game show adaptation, Yahtzee (Game show), was syndicated to local stations during the 1987 season.

## **Other**

Yahtzee sets are commonly used as a source of six-sided dice for other games. This is commonly seen among non-yahtzee playing role-playing gamers

Categories: Dice games

# **Zonk**

*Zonk* is a social dice game, similar in scope to dice 10,000, where the goal is to accumulate 10,000 points by rolling dice. This is NOT a kind or forgiving game, as ALL players must follow a strict code of conduct or else risk the chance of losing their next turn. It may sound complicated, but once played, Zonk is a rather quick and easy game.

## **Contents**

- 1 Equipment required:
- 2 Terms used in gameplay:

- 3 Game Play:
  - 3.1 Scoring combinations:
  - 3.2 Code of Conduct:
  - 3.3 The Role of the Scorekeeper
- 4 The dice NEVER lie:
- 5 The Flow:
- 6 House Rules:
  - 6.1 Specials:
- 7 Extra Scoring Rules
  - 7.1 F3000, FH, F8000, L3000:
- 8 Dirty tricks:

## Equipment required:

- 2 or more hardy souls
- 5 dice (6 sided)
- pad of paper
- writing utensil
- a healthy supply of your intoxicant of choice.
- the TOOL (lighter, can opener)

## Terms used in gameplay:

*Zonk* - refers to the loss of a turn by not rolling a scoring die combination

*Spaz* - refers to the loss of a turn by infraction of the Code of Conduct

*Sh@t, Bloads* - refers to a Zonk on a player's first roll

*Social* - it's time to be social... all players must partake of their intoxicant

*Sweep* - referring to the action of collecting the dice from the playing area and rolling them.

*The Spoils* - referring to the intake of your intoxicant of choice.

*Open* - Surpassing the minimum threshold of 350 points in player's first scoring hand.

*Board* - Playing surface

*Ben-ing, Camping* - used to refer to someone who has held onto the TOOL much longer than they need to, disrupting the zen of his/her fellow players.

## Game Play:

A Scorekeeper is appointed and each person gives their pseudonym, which the Scorekeeper duly records. Once all names are recorded, and the TOOL is in its place, "game on" is called. From this point onwards players MUST follow the code of conduct. Each player takes a die and rolls it, the highest rolls first and dice control proceeds clockwise amongst the players.

The player sweeps the dice and rolls. The dice are then checked for scoring combinations. If the player rolls Bloads, their turn ends and control of the dice is passed to the next player. If there are any scoring dice, the player may decide to save at least one of them and roll the remaining dice or, once 350 points have been accumulated for that round, the player may choose to stop and bank their current score, and pass control of the dice to the next player. If the player decides to continue rolling, he/she may choose to save any scoring dice from that roll. Once saved, they are moved off to the side so as not to interfere with the next roll. If at any time during a turn the player has 5 scoring dice, he/she must add his score, sweep the dice, and continue rolling, adding any new points to their existing score for that turn. this new roll is called the second generation of that turn. the third time they are rolled, it is the third generation, and so on. If the roller makes it to the fifth generation and "banks" his/her score then they get to change one of the other players pseudoname. If the roller makes it to the seventh generation and "banks", then the roller gets to make a new rule. Rolling Bloads on any generation ends the player's turn.

Scores are recorded by the scorekeeper once the player announces his/her decision to stop rolling. A player may not make this decision if there are 5 scoring dice on the board.

Play continues until a player scores over 10,000.

### Scoring combinations:

die roll	points
1s	100 each
5s	50 each
1 + 1 + 1	1000
2 + 2 + 2	200
3 + 3 + 3	300
4 + 4 + 4	400
5 + 5 + 5	500
6 + 6 + 6	600
any 5 of a kind	face value x 1000 (five 4's is 4000)
1 + 2 + 3 + 4 + 5 (a straight)	1000 + sweep
2 + 3 + 4 + 5 + 6	1000 + sweep
"420" (see below)	1000 + turn ends and social

### Code of Conduct:

All players must adhere to a strict code of conduct, any voilation of the following code results in an immediate zonk and loss of next turn. If the offending player is the player whom is currently rolling, that player passes control of the dice to the next player. Infractions are culmulative and are immutable.

1. All players MUST play with a pseudonym. Each reference to a player by their non-pseudonym name results in an infraction.



2. The scorekeeper cannot lie, everyone else is free to talk up a storm.
3. If it's not your turn, you don't get to intentionally touch the dice, unless its a "run doses".
4. Gameplay must stay smooth. Anyone caught stalling during their turn for 2 minutes or more gets a spaz.

(In some variants, the 2 minute rule is replaced with a *verbal and audible* 10-count conducted by 1 or more other players. The 10-count is often cleverly disguised as idle chatter, sometimes even involving the culprit in elaborate conversations! If the 10 is reached, the player gets a spaz. It's called being "spaced out" or "spaced," is duly recorded in the scorebook, and results in lots of ridicule from other players, as it should.)

1. No camping on the TOOL. Anyone caught using the tool and not returning it to its designated spot gets a spaz.
2. The scorekeeper is responsible for maintaining smooth gameplay, this includes proper addition of scores, recording of the "game on", "half-time" start/stop and "game over" times.
3. Be gracious. If the player before you scored, ask them for permission to roll. Don't touch the dice before they put their intoxicant back on the table or specifically instruct you to roll, or you get a spaz.
4. If someone rows three 6's, everyone must put their thumb on the table. The last person to do this gets skipped.
5. A "fake-out" is when someone is tricked into putting their thumb on the table when they're not supposed to. Usually this is done when others put their knuckle on the table instead and you weren't paying attention. That gets a skip.
6. An "eddy" is when a die rolls off the table. This causes someone to forfeit their turn.
7. If a person is rolling their last die and it lands a 2 that is called a "run doses" and can be picked up by any player and either rolled or "eddiied".
8. "420" is a special rule that is generally only applied in the smoking version of the game. If you roll any combination of at least three 4's and 2's on your first roll, then you can roll the remaining dice one at a time in an attempt to get all 4's and 2's. If you succeed then the rolling stops, you get 1000 pts and everybody gets to hit the bowl once, except for yourself who hits it twice.

## **The Role of the Scorekeeper**

Congratulations, your friends have appointed you the scorekeeper... probably because they are lightweights and you can outdrink the bar. Be honoured, but be warned; you have A LOT of responsibilities

1. The scorekeeper is responsible for counting correctly, recording names, scores and game on/off (and halftime) times accurately. If a player calls YOU to on a mistake, you MUST spaz yourself
2. It's the scorekeeper's responsibility to pay attention to the TOOL, and adequately penalize those "Ben"ing it.

3. The scorekeeper is the only person NOT allowed to lie.
4. Any and all infractions are to be recorded by the scorekeeper (including your own). Please keep in mind that all infractions are cumulative. Please see dirty tricks.
5. All infractions must be recorded by their proper terminology where the players score should go. Please review the terms used in gameplay.
6. The scorekeeper is the babysitter. You probably got the position because in real life you're the caring nurturer, and in the game you're assigned the role of the arbiter (or instigator) of most conflict in the game. When in doubt, remember...

### **The dice NEVER lie:**

I cannot stress this concept enough. When the laws of man are not enough, there's always the will of the Heavens (as manifest through the dice). The scorekeeper is the boss EXCEPT when it comes to the dice. On any disputes regarding the dice, let the dice decide the player's fate. If invoked by the scorekeeper, the player in dispute must roll out the rest of his turn, until he either gets five scoring dice (and the resulting sweep) or causes an infraction of the code of conduct. The dice CANNOT be disputed... the dice NEVER lie.

### **The Flow:**

During intense moments of concentration, excitement, or intoxication (usually a mixture of all three), players often spiritually connect with a being known to some as "The Flow," to others "Zen," "The Force," "Lady Flow," etc. Call it what you want, but the Flow is to be feared and respected, for it can have enormous influence over your luck during gameplay. Listen carefully to what you hear/feel: if she tells you to "Parlay" that last die (see below), make sure it really is the Flow and not some selfish voice in your own head. After the roll, it will become clear whether the Flow was with you or not. If it was, ride the wave, but ride with caution! If not, make your apologies to the Lady, relax, and open up to the good flow.

### **House Rules:**

These are residence specific rules, subject to change per the host of the gathering.

There are additional rules that you can add onto the game. These are dictated by a seventh generation rulemaking or are inherited from whomever taught you to play. But there are also some house rules that become standard and unquestioned.

- If a person is packing a bowl or getting the community their beers, they are safe from being "sixed"
- Every 1,000 points gained allows the player to partake of The Spoils. This is called a bonus.

- Defined playing area, the size of which matters only to the host of the gathering. Size is arbitrary, but should be around the size of a small chess board for amateur players.
- If a player disrespects the dice by dropping, mishandling, fumbling or throwing them off the table, they get a spaz and lose all accumulated bonuses. If a die is dropped off the table and another player catches it, they are awarded a Golden Glove bonus, but they also risk a spaz.

### **Specials:**

(Here are a few rules that we have added in our personal playings)

- second hand straight-just as it sounds, same value, but the rolling stops there
- twins-if the last two dice rolled are a pair, then that's 200 points + sweep

(these rules were written by the first editor of this article)

- If a player gets 3 bonuses in a row, it's called a Turkey, and they are encouraged to partake 3 more times (at their leisure).
- when 5150 and 6900 are reached EXACTLY, the scoring player is encouraged to partake of The Spoils yet again. Scorekeeper notes the occasion.
- Socials may be awarded when a player's score at the end of the round matches the social score 4200.
- All Odds or All Evens: if a player is rolling 5 dice and the dice are either all odd numbers or all even numbers, the player may call "All Odd" or "All Even" (depending on the situation) and partake of the spoils. No other privileges obtain from this call; it is simply a reward for the observant. A player can earn multiple bonuses in a turn using this call.
- Unders: at any time during a turn, subject to the player's whimsy, they may call out "Unders" while rolling and whatever dice were rolled are immediately turned upside down, while the unrolled scoring dice are left alone. The player then scores normally. Being in essence a coin-toss bet, Unders offers no statistical advantages unless the Flow is involved, and therefore should be used cautiously by beginners; advanced players often invoke Unders when they feel a mental nudge from said Flow. It can be rewarding to daring players; it is used especially in "Parlay" (see below).

## Extra Scoring Rules

### F3000, FH, F8000, L3000:

A special new rule can be added to the game by the following 4 persons: the first player to reach a score of 3000, 5000, and 8000, and the last player to reach 3000. Each new rule is decided upon by the player first reaching these scores, and is of their own choosing. Generally, the group of players has a set of popular rules, and these are invoked first, which increase both a player's chances of scoring and their chance to get some of the Spoils; later rules are usually designed by the winning player to either slow the advance of the other players or to increase chances of his/her own consumption of the intoxicant. Some common rules are described below:

- **Two Pair (mandatory):** If a player is rolling either 4 or 5 dice, and rolls two pairs (e.g. two threes and two sixes), the player **MUST** sweep the dice, while counting all scoring dice and invoking any mandatory or optional side rules. In addition, the player must partake of the intoxicant. Failure to properly invoke this rule results in a spaz. This rule is the most popular, since a player not only gets to score all dice and roll a new turn; they also get a free shot at the Spoils.

Two Pair can, and must, be used every time it is applicable. This can mean, during the later stages of the game, that a turn can involve several instances of 2-Pair; as a result, players may have to spend some real quality time with the intoxicant and the tools and it is during these times that spazzes and space-outs are most frequent! Pay close attention to the game while it is not your turn!

- **Ziggity (once per turn):** Ziggity, with the possible exception of Parlay, is generally the second most popular side rule next to 'Two Pair.' It is a once-per-turn rule that, when called, permits the roller to sweep all the dice and roll again. The roller may not count any scoring dice when Ziggity is called. The rule helps an unlucky roller out of a tough spot, but offers little beyond that.

The circumstances that permit Ziggity to be called are fairly straightforward: Ziggity may be invoked when 5 dice are rolled and almost create a straight; that is, if one die were changed, the roll would become a straight. For example, Ziggity could be called on the following rolls: 1-2-3-4-4; 1-2-3-4-6; 1-1-3-4-5; *etc.* because if one die were changed, the roll would be a straight. Again, this rule does not add to your score; it just gives you a free "roll-again."

- **Parlay:** Parlay is a complicated, advanced rule with variable gain, and should be used with caution, unless a player is feeling strong vibes from Lady Flow. Parlay is essentially an incentive for those bold dice rollers who have rolled in succession until they have 4 scoring dice, and who intend to continue rolling the final die. If a player calls Parlay, the last die can now count not just on 1 or 5, but also on the (non-scoring) number previously displayed.

--If the final die shows a 1 or 5: the score of the previously-rolled scoring dice is *doubled* and added to the fifth scoring die. (Example: a player shows 3-3-3-5-6, calls Parlay and rolls a 5.

The previous 350 points are doubled to 700, and this is added to the final 50 points for a final score of 750 for the roll.) The player then sweeps the dice and continues the turn.

--If the final die shows the same as previously displayed: the 4 other dice are scored normally, the dice are swept and the turn is continued normally. (Example: in the previous example, if the player rolled a final 6 instead of a 5, s/he would receive 350 points for the turn and sweep the dice.)

**Parlay Odds and Peer Pressure:** If a player has already made the rather unwise decision of rolling two remaining unscoring dice (only a 56% chance of scoring), Parlay can be a further incentive to keep rolling even if it is further unwise to do so. Because Parlay essentially increases your chance of continuing your turn from 33% to 50%, it can become an attractive option to the desparately-behind-on-points player, even though it reduces their fate to a coin-toss. On the other hand, a player who is well in the lead is only risking a few hundred points to keep rolling, and may be likely to invoke it for the sheer thrill of the gamble. This makes Parlay fun for both the losing players and the winning players, but for seriously competing players, the benefits should be carefully weighed before Parlay is invoked!

- **SATAN (Munson and Sweep optional):**

Every so often, a player finds themselves so far removed from the good graces of Lady Flow that they become desparate for help from the Dark Side. It happens slowly, typically when the last-place player crosses 3000 points, several thousand points behind on the far side of halftime. At that point, the rules start getting crazy, and someone has called the SATAN rule. The losers watch helplessly as the leaders rack up points and shots at the Spoils, and someone starts to notice a lot of people scoring with 3 sixes. Soon the player becomes convinced that they are being made an offer by the Devil to ambush Lady Flow. Sure enough, on his/her next role, they get 3 or more sixes. The poor player ponies up their soul and invokes the SATAN rule. This player has just earned *SIX* opportunities to partake of the Spoils. The 600 points are scored normally, Lady Flow has been (at least partially) captured, and the player continues as usual (unless the SATAN rule is modified; see below). The SATAN rule can be used by any player. SATAN can even be used by the leading scorer, who may already be in Dreamland, just to spite the other losers. Because he can.

--If the rule is modified to "SATAN Sweep," the player may sweep the dice immediately and roll again. This would normally be a violation of the rules, but nobody is going to argue with Satan.

--If the rule is modified to "SATAN Munson," the player will sit out their next turn, allowing them to catch up on the Spoils, while pondering the dark fate of their soul everlasting. Concentration is key at this point, to keep Lady Flow from escaping the clutches of the Dark One. The player should frequently remind the other players who is the boss now.

## **Dirty tricks:**

1. Try to find out when your friends are playing Zonk. Call one up (usually the one who DIDN'T invite you) and play dumb... ask them who is playing and who's winning. If they are dumb enough to list off everyone in the game, they're dumb enough to play barmaid while their friends continue following the code of conduct.

2. When you are not the scorekeeper, tell other players (incorrectly) that it's their turn to roll.

3. Pretend to help people keep track of their score, but fool them into thinking they have a different score. If they lose track they spaz.

4. Distract people with conversation or stories to get them spaced out.

5. Say your real name incessantly to implant it into your opponents' heads.

Invent clever songs with your name to further the point.

Categories: Dice games

# Lottery

A *lottery* is a popular form of gambling which involves the drawing of lots for a prize. Some governments forbid it, while others endorse it to the extent of organizing a national lottery. It is common to find some degree of regulation of lottery by governments.

The first signs of a lottery trace back to Asia, where ancient Keno slips were discovered. First played in China, the lottery has helped finance major governmental projects like the Great Wall of China.

Lotteries come in many formats. The prize can be fixed cash or goods. In this format there is risk to the organizer if insufficient tickets are sold. The prize can be a fixed percentage of the receipts. A popular form of this is the "50-50" draw where the organizers promise that the prize will be 50% of the revenue. The prize may be guaranteed to be unique where each ticket sold has a unique number. Many recent lotteries allow purchasers to select the numbers on the lottery ticket resulting in the possibility of multiple winners.

Lotteries are most often run by governments or local states and are sometimes described as a regressive tax, since those most likely to buy tickets will typically be the less affluent members of a society. The astronomically high odds against winning have also led to the epithets of a "tax on stupidity" or "math tax." The phrase is largely rhetorical (playing the lottery is voluntary; taxes are not), but it is intended to suggest that lotteries are governmental revenue-raising mechanisms that will attract only those consumers who fail to see that the game is a very bad deal. Indeed, the desire of lottery operators to guarantee themselves a profit requires that a lottery ticket be worth substantially less than what it costs to buy. After taking into account the present value of the lottery prize as a single lump sum cash payment, the impact of any taxes that might apply, and the likelihood of having to share the prize with other winners, it is not uncommon to find that a ticket for a typical major lottery is worth less than one third of its purchase price.

The fact that lotteries are commonly played leads to some contradictions against standard models economic rationality. However, the goal of some players may not be to win the game, but merely to have a thrill and indulge in a fantasy of possibly becoming wealthy. This is particularly popular among those who believe their chances of becoming rich are already zero, so even if the lottery's odds are awful, they are better than zero.

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## **Countries with a national lottery**

### **Americas**

Argentina: Quiniela, Loto and various others.

Brazil: Mega-Sena and various others

Canada: Lotto 6/49 and Lotto Super 7

Dominican Republic: leidas,s.a.

Mexico:

Puerto Rico

### **Europe**

Austria: Lotto 6 aus 45 and Zahlenlotto

Belgium: Loterie Nationale or Nationale Loterij

Bulgaria: TOTO 2 6/49

Croatia

Denmark: Lotto

Finland: Lotto

France: La Française des Jeux

Germany: Lotto 6 aus 49 and Spiel 77 and Super 6

Greece: Lotto 6/49 , Joker 5/45 + 1/20 and various others

Hungary: Lottó

Iceland: Lottó

Ireland: The National Lottery, An Chrannchur Náisiúnta

Italy: Lotto, Superenalotto

Netherlands:

Norway:

Poland:

Portugal:

Romania:

Serbia: Narodna Lutrija

Slovenia: Loterija Slovenije

Spain: Loterías y Apuestas del Estado



Switzerland: Swiss Lotto

Turkey: Various games by Milli Piyango Odaresi (National Lottery Administration) including Loto 6/49 and jackpots

United Kingdom: formerly The National Lottery, now Lotto. Also Monday - The Charities Lottery, launched on May 8, 2006.

## **Asia**

Hong Kong: Mark Six

Israel: "Lotto"

Japan: Takarakuji

Philippines: Lotto 6/42, Mega Lotto 6/45, Super Lotto 6/49, 6 Digits Luzon, 4 Digits, Suertres Lotto, EZ2 Lotto

Russia: Sportloto

Singapore: TOTO

South Korea: Lotto

Taiwan

## **Africa**

- South Africa

## **Australia**

Australia: Australian Lottery Games, Powerball

New Zealand: Lotto

## **Country Lottery details**

### **Lottery in the United States**

In the United States, the existence of lotteries is subject to the laws of each state; there is no national lottery. Before the advent of state-sponsored lotteries, many illegal lotteries thrived; for example, see Numbers game and Peter H. Matthews. The first modern state lottery in the U.S. was established in the state of New Hampshire in 1964; today, lotteries are established in forty-one states and the District of Columbia. On October 8, 1970, New York held the first million dollar lottery drawing.

The first modern interstate lottery in the U.S. was Tri-State Lotto. Tri-State Lotto was formed in 1985 and linked the states of Maine, New Hampshire and Vermont. In 1988, the Multi-State Lottery Association was formed with Oregon, Iowa, Kansas, Rhode Island, West Virginia and the District of Columbia as its charter members; it is best known for its "Powerball" drawing, which is designed to build up very large jackpots. Another interstate lottery, The Big Game (now called Mega Millions), was formed in 1996 by the states of Georgia, Illinois, Massachusetts, Maryland, Michigan and Virginia as its charter members.

Instant tickets, also known as scratch cards, were first introduced in the 1970s and have since become a major source of state lottery revenue. Some states have introduced keno and video lottery terminals (slot machines in all but name).

Other interstate lotteries include: Hot Lotto, Lotto South, and Wild Card 2.

With the advent of the Internet it became possible for people to play lottery-style games on-line, many times for free (the cost of the ticket being supplemented by merely seeing, say, a pop-up ad).

## **Lottery in Canada**

The first lottery in Canada was Quebec's Inter-Loto in 1970. Other provinces and regions introduced their own lotteries through the 1970s, and the federal government ran Loto Canada (originally the Olympic Lottery) for several years starting in the late 1970s to help recoup the expenses of the 1976 Summer Olympics. Lottery wins are generally not subject to Canadian tax, but may be taxable in other jurisdictions, depending on the residency of the winner.[2]

Today, Canada has two nation-wide lotteries: Lotto 6/49 (which started in 1982), and Lotto Super 7 (which started in 1994). These games are administered by the Interprovincial Lottery Corporation, which is a consortium of the five regional lottery commissions, all of which are *owned by their respective provincial and territorial governments*:

Atlantic Lottery Corporation (New Brunswick, Nova Scotia, Prince Edward Island, Newfoundland and Labrador)

Loto-Québec (Quebec)

Ontario Lottery and Gaming Corporation (Ontario)

Western Canada Lottery Corporation (Manitoba, Saskatchewan, Alberta, Yukon Territory, Northwest Territories, Nunavut)

British Columbia Lottery Corporation (British Columbia)

## **Lottery in France**

The first known lottery in France was created by King Francis I in or around 1505. After that first attempt, lotteries were forbidden for two centuries.

They reappeared at the end of 17th century, as a "public lottery" for the Paris municipality (called Loterie de L'Hotel de Ville) and as "private" ones for religious orders (mostly for nuns in convents).

Lotteries became quickly one of the most important resources for religious congregations in the 18th century.

Lotteries helped to build or rebuild many churches (about 15 including the biggest ones) in Paris during the 18th century, including St Sulpice and Le Panthéon.

At the beginning of the century, the King avoided having to fund religious orders by giving them the right to run lotteries, but the amounts generated became so large that the second part of the century turned into a struggle between the monarchy and the Church for control of the lotteries. In 1774, the Loterie de L'École Militaire was founded by the monarchy (by Mme de Pompadour to be precise, to buy what is called today the Champ de Mars in Paris, and build a Military Academy that Napoleon Bonaparte would later attend) and all other lotteries, with 3 or 4 minor exceptions, were forbidden.

This lottery became known a few years later as the Loterie Royale de France. Just before the French Revolution in 1789 the revenues from La Lotterie Royale de France were equivalent to between 5 and 7% of total French revenues.

Throughout the 18th century, philosophers like Voltaire as well as some bishops complained that lotteries exploit the poor. This subject has generated much oral and written debate over the morality of the lottery.

All lotteries (including state lotteries) were frowned upon by idealists of the French Revolution, who viewed them as a method used by the rich for cheating the poor out of their wages.

The Lottery reappeared in France in 1936, called loto, when socialists needed to increase state revenue. Since that time, La Française des Jeux (government owned) has had a monopoly on most of the games in France, including the lotteries.

## **Probability of winning**

The chances of winning a lottery jackpot are principally determined by several factors: the count of possible numbers, the count of winning numbers drawn, whether or not order is significant and whether drawn numbers are returned for the possibility of further drawing.

In a typical 6 from 49 lotto, 6 numbers are drawn from 49 and if the 6 numbers on a ticket match the numbers drawn, the ticket holder is a jackpot winner - this is true regardless of the order in which the numbers are drawn. The odds of being a jackpot winner are approximately 1 in 14 million (13,983,816 to be exact).

To put these odds in context, suppose one buys one lottery ticket per week. 13,983,816 weeks is roughly 269,000 years; In the quarter-million years of play, one would only expect to win the jackpot once.

The odds of winning any actual lottery can vary widely depending on lottery design. "Powerball" is a very popular multistate lottery in the United States which is known for jackpots that grow very large from time to time. This attractive feature is made possible simply by designing the game to be extremely difficult to win: 1 chance in 146,107,962. That's over ten times *smaller* than the example above. Powerball players also pick six numbers, but two different "bags" are used. The first five numbers come from one bag that contains numbers from 1 to 55. The sixth number -- the "Powerball number" -- comes from

the second bag, which contains numbers from 1 to 42. To win a powerball jackpot, a player's five regular numbers must match the five regular numbers drawn *and* the Powerball number must match the Powerball number drawn. In other words, it is not good enough to pick 10, 18, 25, 33, 42 / 7 when the drawing is 7, 10, 25, 33, 42 / 18. Even though the player picked all the right numbers, the Powerball number at the end of the ticket doesn't match the one drawn, so the ticket would be credited with matching only four numbers (10, 25, 33, 42).

Most lotteries give lesser prizes for matching just some of the winning numbers. The Powerball game described above is an extreme case, giving a very small payout (US\$3) even if a player matches only the Powerball number at the end of your ticket. Matching more numbers, the payout goes up. Although none of these additional prizes affect the chances of winning the jackpot, they do improve the odds of winning something and therefore add a little to the value of the ticket.

The expected value of lottery bets is often notably bad. In the United States, an expected value of -50% is not atypical. This has led some people to deride lotteries as "the math tax" or a "tax on stupidity."

## Notable prizes

Prize	Lottery	Country	Name	Date	Notes
<b>\$365m</b> <b>(€306m, £210m)</b>	Powerball	United States	One ticket bought jointly by 18 eight co-workers at a Nebraska meat processing plant	February 2006	World's largest lottery jackpot prize
<b>\$363m</b> <b>(€291.21m, £200m)</b>	The Big Game	United States	Two winning tickets: Larry and Nancy Ross (Michigan), Joe and Sue Kainz (Illinois)	9 May 2000	The Big Game is now named Mega Millions
<b>€183m</b> <b>(€220m, £124.8m)</b>	EuroMillions	France(2), Portugal(1)	Three ticket holders	3 February 2006	Europe's largest jackpot
<b>€115m</b> <b>(\$142.4m, £77m)</b>	EuroMillions	Ireland	Dolores McNamara	29 July 2005	Europe's largest single winner
<b>£42m</b> <b>(€60.3m, \$74.7m)</b>	National Lottery	United Kingdom	Three ticket holders	6 January 1996	Largest UK prize
<b>£20.1m</b> <b>(€28.8m, \$35.7m)</b>	National Lottery	United Kingdom	Iris Jeffrey	14 July 2004	Biggest single winner (UK)
\$850,000	Powerball	United States	Senator Judd Gregg	20 October 2005	Famous person

On 20 September 2005 a primary school boy in Italy won £27.6 million in the national lottery. Although children are not allowed to gamble under Italian law, children are allowed to play the lottery. [3]

## **Payment of prizes**

Winnings are not necessarily paid out in a lump sum, contrary to the expectation of many lottery participants. In certain countries, such as the USA, the winner gets to choose between an annuity payment and a one-time payment. The one-time payment is much smaller, indeed often only half, of the advertised lottery jackpot, even before applying any withholding tax to which the prize may be subject. The annuity option provides regular payments over a period that may range from 10 to 40 years.

In some online lotteries, the annual payments can be as little as \$25,000 over 40 years, with a balloon payment in the final year. This type of installment payment is often made through investment in government-backed securities. Online lotteries pay the winners through their insurance backup. However, many winners choose to take the lump-sum payment, since they believe they can get a better rate of return on their investment elsewhere.

In some countries, lottery winnings are not subject to personal income tax, so there are no tax consequences to consider in choosing a payment option. In Canada and Australia, all prizes are immediately paid out as one lump sum, tax-free to the winner.

## **Scams and Frauds**

Lottery like any mechanism is susceptible to fraud despite the high degree to scrutiny offered by the organisers. One method involved is to tamper the machine used for the number selection. By rigging a machine it is theoretically easy to win a lottery. This act is often done in connivance with an employee of the lottery firm. Methods used vary; loaded balls where select balls are made to popup making it either lighter or heavier than the rest. Many other ingenious methods too have been employed.

Some scams on the internet too are based on lotteries. The modus operandi of this fraud is the trickster sends spam to all email users in their database congratulating them on their recent lottery win. Then they proceed to announce that in order to release funds they must part with a certain amount (as tax/fees) as per the rules or risk forfeiture. Some unsuspecting users might fall prey to this scandal and part with their money falling into their trap, where they continue to pay as they are misled by the scamsters who dupe their clients into believing that they are always one step closer to the money. The swindlers also might use telephone or printed letters to approach victims to execute their plan more professionally.

Another form of lottery scam involves the selling of "systems" which purport to improve a player's chances of selecting the winning numbers in a Lotto game. These scams are generally based on the buyer's (and perhaps the seller's) misunderstanding of probability and random numbers.

## **See also**

- Gambling

- Keno

## Lottery card games

Basset | Blind\_Hookey | Faro | Fuck the Dealer | Hollywood Poker | Kot bo sitah

### Basset

The game of *Basset* (in French *Bassette*, from Italian *Bassetta*) was considered one of the most polite games with cards, and only fit for persons of the highest rank to play at, on account of the great losses or gains that might accrue on one side or the other.

The sums of money lost in France at this game were so considerable that the princes of the blood were in danger of being undone; and after many persons of distinction were ruined the court of France thought fit to forbid Basset. Then faro was invented; and both were soon introduced into England, and after three or four years' play here, they impoverished so many families, that Parliament enacted a suppression of both games, with severe penalties. The two games are, therefore, of historical interest, and deserve an explanation.

Basset was a sort of lottery. The dealer who kept the bank at Basset, having the sole disposal of the first and last card, and other considerable privileges in dealing the cards, had a much greater prospect of gaining than those who played. This was a truth so acknowledged in France that the king, by public edict, ordered that the privilege of a *talliere*, or banker at Basset, should only be allowed to the 'chief cadets,' or sons of noblemen -- supposing that whoever kept the bank must, in a very short time, acquire a considerable fortune.

In this game there was:

1. The *Talliere*, the banker, who laid down a sum of money to answer every winning card which might turn up.
2. The *Croupiere*, the assistant of the former, standing by to supervise the losing cards, -- so that when there were many at play he might not lose by overlooking anything which might turn up to his profit.
3. The *Punter*, or every player
4. The *Fasse*, that is, the first card turned up by the *talliere*, by which he gained half the value of the money laid upon every card of *that sort* by the punters or players.
5. The *Couch*, which was the first stake that every punter laid upon each card -- every player having a book of 13 cards before him, upon which he must lay his money, more or less, according to his fancy.
6. The *Paroli*: in this, whoever won the couch, and intended to go on for another advantage, crooked the corner of his card, letting his money lie, without being paid the value by the *talliere*.

7. The Masse, which was, when those who had won the couch, would venture more money on the *same* card.

8. The Pay, which was when the player had won the couch, and, being doubtful of making the paroli, left off; for by going the pay, if the card turned up wrong, he lost nothing, having won the couch before; but if by this adventure fortune favoured him, he won double the money he had staked.

9. The Alpieu was when the couch was won by turning up, or crooking, the corner of the winning card.

10. The Sept-et-le-va was the first great chance that showed the advantages of the game, namely, if the player had won the couch, and then made a paroli by crooking the corner of his card, and going on to a *second* chance, if his winning card turned up again it became a sept-et-le-va, which was seven times as much as he had laid upon his card.

11. Quinze-et-le-va, was attending the player's humour, who, perhaps, was resolved to follow his fancy, and still lay his money upon the *same* card, which was done by crooking the third corner of his card: if this card came up by the dealing of the talliere, it made him win fifteen times as much money as he staked.

12. Trent-et-le-va was marked by the lucky player by crooking the end of the fourth corner of his card, which, coming up, made him win thirty-three times as much money as he staked.

13. Soissante-et-le-va was the highest chance that could happen in the game, for it paid sixty-seven times as much money as was staked. It was seldom won except by some player who resolved to push his good fortune to the utmost.

The players sat round a table, the talliere in the midst of them, with the bank of gold before him, and the punters or players each having a book of 13 cards, laying down one, two, three, or more, as they pleased, with money upon them, as stakes; then the talliere took the pack in his hand and turned them up -- the bottom card appearing being called the *fasse*; he then paid half the value of the stakes laid down by the punters upon any card of *that sort*.

After the *fasse* was turned up, and the talliere and croupiere had looked round the cards on the table, and taken advantage of the money laid on them, the former proceeded with his deal; and the next card appearing, whether the king, queen, ace, or whatever it might be, won for the player, the latter might receive it, or making paroli, as before said, go on to sept-et-le-va. The card after that won for the talliere, who took money from each player's card of that sort, and brought it into his bank -- obviously a prodigious advantage in the talliere over the players.

The talliere, if the winning card was a king, and the next after it was a ten, said (showing the cards all round), 'King wins, ten loses,' paying the money to such cards as are of the winning sort, and taking the money from those who lost, added it to his bank. This done, he went on with the deal, it might be after this fashion -- 'Ace wins, five loses; 'Knave wins, seven loses;' and so on, every other card alternately winning and losing, till all the pack was dealt but the last card.

The *last* card turned up was, by the rules of the game, for the advantage of the talliere; although a player might have one of the same sort, still it was allowed to him as one of the dues of his office, and he paid nothing on it.

The bold player who was lucky and adventurous, and could push on his couch with a considerable stake to sept-et-le-va, quinze-et-le-va, trente-et-le-va, &c., must in a wonderful manner have multiplied his couch, or first stake; but this was seldom done; and the loss of the players, by the very nature of the game, invariably exceeded that of the bank; in fact, this game was altogether in favour of the bank; and yet it is evident that -- in spite of this obvious conviction -- the game must have been one of the most tempting and fascinating that was ever invented.

Our English adventurers made this game very different to what it was in France, for there, by royal edict, the public at large were not allowed to play at more than a franc or ten-penny bank, -- and the losses or gains could not bring desolation to a family; but in England our punters could do as they liked -- staking from one guinea to one hundred guineas and more, upon a card, 'as was often seen at court,' says the old author, my informant. When the couch was alpieued, parolied, to sept-et-le-va, quinze-et-le-va, trente-et-le-va, &c., the punter's gains were prodigious, miraculous; and if fortune befriended him so as to bring his stake to soissante-et-le-va, he was very likely to break the bank, by gaining a sum which no talliere could pay after such tremendous multiplication. But this rarely happened. The general advantage was with the bank -- as must be quite evident from the explanation of the game - - besides the standing rule that no two cards of the same sort turning up could win for the players; the second always won for the bank. In addition to this there were other 'privileges' which operated vastly in favour of the banker.

However, it was 'of so bewitching a nature,' says our old writer, 'by reason of the several multiplications and advantages which it seemingly offered to the unwary punter, that a great many like it so well that they would play at small game rather than give out; and rather than not play at all would punt at six-penny, three-penny, nay, a twopenny bank, -- so much did the hope of winning the quinze-et-le-va and the trente-et-le-va intoxicate them.'

Of course there were frauds practised at Basset by the talliere, or banker, in addition to his prescriptive advantages. The cards might be dealt so as not to allow the punter any winning throughout the pack; and it was in the power of the dealer to let the punter have as many winnings as he thought convenient, and no more!

It is said that Basset was invented by a noble Venetian, who was punished with exile for the contrivance. The game was prohibited by Louis XIV, in 1691, and soon after fell into oblivion in France, although flourishing in England. It was also called Barbacole and Hocca.

**Categories:** Lottery card games

## **Blind\_Hookey**

*Blind Hookey* is a card game played with a full pack of cards, sometimes used for the purpose of gambling.

The players, of whom there may be any number, cut for deal, the lowest having the preference. The pack is then shuffled by the player on the dealer's right hand, and afterwards, if he so please, by the dealer himself, after which it is cut by the right-hand player. The two halves are then re-united, and the pack is passed to the player on the left of the dealer, who



cuts from the top a small quantity of cards (not less than four, nor more than his due proportion of the pack). The pack is then passed to the next player, who cuts a similar portion, and so on round the circle, the cards left belonging to the dealer. No one looks at his cards, but makes his stake on pure speculation; hence the name "blind" hookey. The dealer then turns up his cards, and shows the bottom one; the other players do the same. Each player holding a higher card than that of the dealer receives the amount of his stake; all below or equal pay the dealer. This is repeated until a hand occurs in which the dealer is a loser all round, when the deal is at an end, and the next player deals.

### **Alternative method**

The cards are shuffled and cut, before the dealer cuts them into three portions. Two of these are for the company, the third for himself. The other players place their stakes on whichever two packets they please, the rejected packet being taken by the dealer.

The stakes having been made, the cards are turned up, and the players receive or pay as the bottom cards of their packets prove to be higher or lower than that of the dealer.

**Categories:** Lottery card games

## **Faro**

*Faro* is a card game, a descendant of Basset. It enjoyed great popularity during the 18th century, particularly in England and France, and in the 19th Century in the United States, particularly on the American Frontier, where it was practiced by 'faro dealers' such as the infamous Doc Holliday. It has since fallen completely out of fashion and is only practiced by dedicated Old West enthusiasts and Civil War re-enactors. Its name is believed to be a corruption of pharaoh, and refers to the Egyptian motif that commonly adorned French-made playing cards of the period.

Faro is similar to the contemporary game of Mini-Baccarat.

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## Rules

A game of faro was often called a 'faro bank.' It was played with an entire pack of playing cards, and admitted of an indeterminate number of players, termed 'punters,' and a 'banker.' Chips (called 'checks') were purchased by the punter from the banker or house from which the game originated. Bet values and limits were set by the house. Usual check values were 50 cents to \$10. each.

The faro table was square, with a distinguished cut-out for the 'banker.' A board with a standardized betting layout consisting of one card of each denomination pasted to it, called 'the layout,' was placed on top of the table. (Traditionally, the suit of spades was used for the layout.) Each player laid his stake on one of the 13 cards on the layout. Players could place multiple bets and could bet on multiple cards simultaneously by placing their bet between cards or on specific card edges. Players also had the choice of betting on 'the high card' located at the top of 'the layout.'

A deck of cards was placed face-up inside a 'dealing box,' a mechanical shoe used to prevent manipulations of the draw by the banker, and was supposed to assure players of a fair game. Many sporting house supply companies sold gaffed dealing box, that were made so that the banker could cheat. The first card in the dealing box is called the 'top card,' and is "burned" off, leaving 51 cards in play. As the 'top card' is pulled out of the dealing box, it exposes the first card in play, which is called the 'banker's card,' and placed on the right side of the dealing box in the other, called the *carte anglaise*, or English card, and simply called the 'player's card' in the United States for the players, placed on the left.

The banker collects on all the money staked on the card laid on the right, and had to pay double the sums staked on those on the card remaining on the left (in the dealing box). In modern betting terms, the payoff on these winning wagers was "2 for 1", which is the same as odds of "1 to 1", also called "even money".

A player could "copper" their bet by placing an octagon shaped token called a "copper." Some histories claim a penny was sometimes used in place of a copper. This reversed the meaning of the win/loss piles for that particular bet. An abacus-like device, called a "case keep" is employed to assist the players and prevent dealer cheating by counting cards. The operator of the case keep is called the "case keeper."

Certain advantages were reserved to the banker: -- if he drew a doublet, that is, two equal cards, he won half of the stakes upon the card which equalled the doublet. In a fair game, this provided the only house edge.

If the banker drew for the players the last card of the pack, he was exempt from doubling the stakes deposited on that card. In most cases, when 3 cards remained, the dealer would offer a specialized bet called "betting the turn." This bet offers a 5 for 1 payout if the players can identify the exact order of the last 3 cards.

## History

Faro was undoubtedly one of the most popular card games of the 18th century, especially among the lower classes. Although both faro and Basset were forbidden in France, on severe penalties, these games continued to be in great vogue in England during the 18th century; apparently because it was easy to learn, it gave the appearance of being very fair, and, lastly, it was a very quiet, quick game, and could be played discreetly. "Our life here," writes Gilly Williams to George Selwyn in 1752, "would not displease you, for we eat and drink well, and the Earl of Coventry holds a Pharaoh-bank every night to us, which we have plundered considerably." Charles James Fox preferred faro to any other game, as did american con man Soapy Smith. It was said that every faro table in Soapy's Tivoli Club, in Denver, Colorado in 1889 was gaffed (made to cheat). Faro was played all over the United States, by the rich and the poor, during the 19th century.

Faro's detractors regarded it as a dangerous scam that destroyed families and reduced men to poverty. This reputation is likely due to the use by some bankers of rigged dealing boxes that allowed the banker to manipulate the draw of the cards after observing the players' bets.

Faro bankers were alleged to employ 'gentlemen' to give a very favourable report of the game to the town, so that the games would be allowed to transpire without further inquiry.

## Literary fiction

Faro is the game played in Aleksandr Pushkin's short story *The Queen of Spades*. Faro is also played in Fyodor Dostoevsky's novel *The Brothers Karamazov*.

## Movies

- Faro is played by characters in saloons on the HBO series "Deadwood".
- Scenes involving the game of faro (with varying degrees of accuracy) appear in the Hollywood movies *Wyatt Earp*, starring Kevin Costner, and *Tombstone*, starring Kurt Russell as Wyatt Earp and Val Kilmer as Doc Holliday.
- In the film *The Sting*, it is said that the gangster (and intended "mark") *Doyle Lonnegan* (*Robert Shaw*) only plays faro when he goes out to casinos, and then only by himself.

## References

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**Categories:** Lottery card games

## Fuck the Dealer

*Fuck the Dealer* is a simple drinking game popular in the Midwest. It is best played by three to six players, although it can be played with more. It is similar to the game Hi-Lo, except that all cards are laid out face up on the table once they've been played.

### The rules

Play starts with one person, the 'Dealer', shuffling the cards and placing them face down in front of him.

The person to the dealer's left becomes the first 'Player'. The Player tries to guess what the top card on the deck is. The dealer then looks at the top card and tells him whether or not his guess was right. If the player guesses correctly, the dealer takes *five* drinks. Otherwise, the dealer tells the player whether the top card is 'Higher' or 'Lower' than his guess. The player then gets one more chance to guess correctly. If he guesses correctly on the second attempt, the dealer takes *three* drinks. If the player guesses incorrectly, the player drinks the difference between his guess and the card. (i.e. if he guesses a '5' and the card was a really '3', the player must take 2 drinks.)

In either case, the dealer now places the card face up in front of him. Arrange the cards in an organized fashion, so everyone can see which cards have already been drawn(see image right). When all four of a particular card have been drawn, it is considered to be "closed out". Cards which have been closed out are flipped over to help everyone see that no more of those cards are available.

Now, play continues and the dealer looks at the next person and asks him to pick a card. This continues until two players in a row guess incorrectly. When that happens, the player to the dealer's left becomes the new 'Dealer'.

It is important to note that there are two 'circles' going on - the dealer circle, and the player circle. The next 'Dealer' is always the person to the current dealer's left. Likewise, the next 'player' is always the person to the left of the last player --- The next player does not change just because a new person is made dealer. The next player is NOT automatically the person to the new dealer's left... unless of course the player to the Dealer's left is the next person in line. And of course, the player and the dealer cannot be the same person. But if that situation should ever occur, the 'dealer' circle takes priority over the 'player' circle.

Play continues until the dealer is left with three cards. At that point, the dealer is considered to be 'Fucked' and must do a shot. (Since there are only three cards, the player is

guaranteed to guess correctly on the second attempt. Therefore, the dealer is figuratively 'Fucked'! Hence, the title of the game)

**Categories:** Lottery card games

## Hollywood Poker

The origins of this game are unknown but it can be found at the kitchen tables across the Canadian Prairies

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### Equipment

- Chips
- 3+ Decks
- 2+ Players

### Players

There are players and the dealer, both of which pivotal to game play. PLAYERS: participate in every game DEALER: the dealer only plays in games specified. They also play house and make up any differences. Position moves to the left each round.

### Game Play

Dealer gives five cards to everyone face down.

I. Red Black Each player bets whether the majority of cards is red or black, if all are one type the bet is doubled.

II. Poker Dealers deals house hand face down. Players place bets against the house only.

III. Bingo Dealer calls bingo cards while players put one chip on every card called. The winner(s) get all chips placed on the cards

IV. Put & Take Dealer flips cards (one at a time); first puts in one, second puts in two... and then first takes one, second takes two... the dealer makes up the difference

V. Counting Dealer flips cards from deck counting out loud (ace, two, three...). If a card flipped matches the verbal card, players give the amount on the card (Jack eleven, Queen twelve, King thirteen)

## End Of Game

As soon as a player runs out of chips the player is out of the game. If the game is called short the player with the most chip wins.

**Categories:** Lottery card games

## Kot bo sitah

*Kot bo sitah* is a card game famous in the Arab world. It depends on putting a cap on a number and it is played by six people. The spades is usually the strongest thing to play with. The game depends on giving each player a set of random cards and he should through the cards and the spades always eat other

**Categories:** Lottery card games

## 4-Digits

*4-Digits (4D)* is a Singapore lottery. People play by choosing any number from 0000 to 9999. 23 number combinations are drawn every time. If one of the numbers match the one that the player has bought, a prize is won.

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  - 1.3 System Entry
  - 1.4 iBet
  - 1.5 Quickpick

## Methods of Play

### Ordinary Entry

Ordinary entry refers to a specific number. Example: 1234

### 4-D Roll

4-D Roll refers to a bet which substitutes any one of the four digits with 'R'. (i.e. R123, 1R23, 12R3 and 123R) where 'R' denotes all digits from 0 to 9. Only one digit can be substituted with 'R'. For example, if you mark R234, you are actually buying 10 Ordinary Entries (i.e. 0234, 1234, 2234, 3234 .... 9234).

### System Entry

System entry refers to a bet on all the possible permutations of a 4-D number, e.g. the number 1234 has 24 permutations (1234, 2341, 3412, 4123...).

### iBet

iBet is a System Entry bet priced from \$1, regardless of the number of permutations.

### Quickpick

Quick pick refers to a bet on a random number selected by the computer.  
Categories: Lotteries

## Bovine bingo

*Bovine bingo* is a traditional rural fundraising game that is often played at country fetes and summer fairs, usually for fundraising purposes.

Bovine bingo is not really a form of bingo, but a form of lottery. The game is set up by marking out a grid of rectangles on an enclosed land area, such as a paddock or farm field. This is usually done by chalking lines. The grid cells are then numbered or otherwise identified in some way, and chances are sold on each cell. A cow (or other livestock animal) is then let loose within the enclosure. Where the first "cowflop" (defecation) lands

determines the winner. Another popular variation of this game takes place during parades, usually with horses. Same rules apply, however.

The game is also known as "Cowpie Bingo", "Fertilizer Lotto", "Cow Patty Bingo", "Cow Pat Lottery", or "Bossy Bingo."

Categories: Lotteries

## Jueteng

*Jueteng* (pronounced wet-teng) is an illegal numbers game played in the Philippines. Jueteng came from China and it means flower (jue) and bet (teng). Although illegal, it is a widely popular game with participation that crosses most, if not all social and economic boundaries, played by rich and poor alike. With long odds and no limits on minimum or maximum bets, the lure of quick riches through a lucrative payout is by far its strongest appeal.

The game relies heavily on having a large number of wagers, and there is no limit to the amount of the bet(s). Usually the gambler selects two numbers from 1 through 37, and the winning number is determined by selecting a pair of numbers from a set of 37 numbered balls. Thus the theoretical odds of winning on any one play are one in  $^{37}C_2$ , or 1/666. This is unlike the numbers games in the U.S. during the early part of the 20th century, where the last digit of the winning pay out or the number of the winning horse for three consecutive races determined the winning combination.

Although much has been done to curtail or eradicate this form of unregulated gambling by government and community leaders, it appears that such efforts have fallen by the wayside due to its vast popularity, and the poverty which cripples the country.

## Scandals

Jueteng was brought to notoriety in 2000 during the impeachment proceedings of deposed Philippine President Joseph Estrada, who was accused of receiving illegal payoffs from gambling profits. Another political scandal erupted in June 2005 involving allegations that relatives of Gloria Macapagal-Arroyo received payouts from jueteng operators.

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## Lottery jackpot records

*Lottery jackpot records* are a matter of some interest to both participants and observers of this form of gambling.

It is often said that the annual Christmas lottery in Spain, dubbed El Gordo (The Fat One), is the largest in the world. In 2003 its prize fund reached (converting euros to approximate



dollars) \$2,200,000,000 with a first prize of \$470,000,000 and second prize of \$235,000,000. However, every number entered in this lottery is on 170 tickets which are often sold in fractions (usually tenths). Thus, the El Gordo prize is usually split, and is not comparable to the winner-take-all style drawings popular elsewhere.

## **U.S.A. lotteries**

The largest draw prize in a lottery was US \$365 million Powerball on February 18, 2006 won by a group of eight meat processing workers in Nebraska. The 2nd largest draw prize in a lottery was the US \$363 million Big Game jackpot of May 9, 2000, split between two winners. This game was relaunched as Mega Millions, with odds lengthened to 135 million to one, in May 2002, and the odds further lengthened to 175 million to one in June 2005, but the jackpot record has not been broken. The largest single Big Game or Mega Millions winner has been Geraldine Williams of Lowell, Massachusetts, USA, with the \$294 million annuity-value jackpot of the July 2, 2004 drawing. The Mega Millions jackpot of November 15, 2005, divided by seven employees of a medical center who shared one winning ticket, had an annuity value of \$315 million, but the lump sum value was a record \$187.1 million.

The largest single winner of any lottery prize was Andrew J. Whittaker Jr. of West Virginia, who won \$314.9 million in the Powerball drawing of December 25, 2002. Opting as most large prize winners in the U.S. do for the lump sum, his after-tax prize has been variously reported as \$111,681,349 and \$113,386,407.77. Because of different tax rates, the \$168 million lump sum opted for by Mega Millions winner Geraldine Williams (see previous paragraph) was reported as \$117.6 million after taxes. Harold and Helen Lerner of New Jersey also claimed a higher after-tax lump sum than Whittaker in the Mega Millions of September 16, 2005 as New Jersey has no state tax on lottery prizes. The October 19, 2005 Powerball drawing won by nine members of the West and Chaney families of Medford, Oregon was for a larger annuity (\$340 million) but a smaller lump sum than Whittaker's.

## **State lotteries in the United States**

The record annuity-value prizes in the largest state lottery games in the United States have been:

California: \$193 million to three tickets February 16, 2002; to single winner, \$141 million to Alcario Castellano on June 23, 2001

New York: \$130 million in special Millennium Millions game November 4, 2000, shared by two winners; to single winner, \$100 million to Johnnie Ely in Millennium Millions of December 31st 1999; in regular New York Lotto, \$72 million to four tickets May 31, 1997; single-ticket record for New York Lotto is \$58 million

Pennsylvania: \$115.6 million shared among fourteen winning tickets in April 1989, in Super 7 game later discontinued after a scandal; in subsequent Super 6 game \$86,192,222.20 in December 1999, claimed by Shemonski family in March 2000

Florida: \$106.5 million to six tickets in September 1990

Texas: estimated \$145 million June 19, 2004

Ohio: \$75 million April 13, 2002.

The ratio between lump sum and annuity value varies over time with interest rates and possible alterations in the length of the period for which payments are made.

## European lotteries

Unlike in the United States, where lottery wins are taxed, and the full winnings are paid by an annuity over a period of many years or a reduced lump-sum amount is offered, European lotteries are generally tax-free and the winning jackpot is paid out immediately in one lump sum.

*EuroMillions* is a pan-European lottery, with odds of 1 in 76,275,360. In July 2005, Irish woman, Dolores McNamara won a tax-free €115,436,126 (\$139m) jackpot. On February 3, 2006, EuroMillions had a prize of €183 million (\$219m), which was shared between three winning tickets, two in France and one in Portugal, each winning €61,191,026.

The largest win on the British National Lottery, established in 1994, is currently £22,590,829 (US\$40 million) won on 10 June 1995 by Paul Maddison and Mark Gardiner. The oldest person made a sterling millionaire by the lottery was Gracie Vera Coulson, who was 87 when she won £1,090,387 in December 1999. Two 16 year olds and two 17 year olds have also won between £1 and £2 million.

The Irish National Lottery, established in 1987 and replacing the Irish Sweepstakes which had run since 1930, has a guaranteed jackpot of €1,500,000 for each of its twice-weekly draws. The largest ever win was €7,892,753 won in May 1997 by an anonymous winner from Cork.

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## Lottery Mathematics

This article discusses the way to calculate various probabilities in a lottery game in which one selects 6 numbers from 49, and hopes that as many of those 6 as possible match the 6 that are randomly selected from the same pool of 49 numbers in the "draw".

### Contents

- 1 Calculation explained in choosing 6 from 6 of 49
- 2 Odds of getting other scores in choosing 6 from 49
- 3 Powerballs And Bonus Balls

## Calculation explained in choosing 6 from 6 of 49

In a typical 6/49 lotto, 6 (k) numbers are drawn from a range of 49 (n) and if the 6 numbers on a ticket match the numbers drawn, the ticket holder is a jackpot winner - this is true no matter the order in which the numbers appear. The odds of this happening are 1 in 14 million (13,983,816 to be exact).

The relatively small chance of winning can be demonstrated as follows:

Starting with a bag of 49 differently-numbered lottery balls, there is clearly a 1 in 49 chance of predicting the number of the 1st ball out of the bag. Accordingly, there are 49 different ways of choosing that first number. When the draw comes to the 2nd number, there are now only 48 balls left in the bag (in case of no return of already drawn balls to the bag), so there is now a 1 in 48 chance of predicting this number.

Thus, each of the 49 ways of choosing the first number has 48 different ways of choosing the second. This means that the odds of correctly predicting 2 numbers drawn from 49 is calculated as:  $49 \times 48$ . On drawing the third number there are only 47 ways of choosing the number; but of course someone picking numbers would have gotten to this point in any of  $49 \times 48$  ways, so the chances of correctly predicting 3 numbers drawn from 49 is calculated as:  $49 \times 48 \times 47$ . This continues until the sixth number has been drawn, giving the final calculation:  $49 \times 48 \times 47 \times 46 \times 45 \times 44$  (also written as  $49! / (49-6)!$ ). This works out to a very large number (10,068,347,520), which is however much bigger than the 14 million stated above.

The last step needed to understand that the order of the 6 numbers is not significant. That is, if a ticket has the numbers 01, 02, 03, 04, 05, 06 - it wins as long as all the numbers 1 through 6 are drawn, no matter what order they come out. Accordingly, given any set of 6 numbers, there are  $6 \times 5 \times 4 \times 3 \times 2 \times 1 = 6 \text{ factorial} = 6! = 720$  ways they could be drawn.

In most popular spreadsheets, the combinations function is COMBIN(n,k). For example, COMBIN(49,6) (the calculation shown above), would return 13,983,816. For the rest of this article, we will use the notation  $c(n,k)$  for convenience.

## Odds of getting other scores in choosing 6 from 49

One must calculate the total number of lottery combinations ( $c(49,6) = 13,983,816$ , as explained in the section above), and divide it by the number of those combinations which give the desired result - which equates to the number of ways one can select the winning numbers multiplied by the number of ways one can select the losing numbers.

For a score of n (e.g. if 3 of your numbers match the 6 balls drawn, then  $n=3$ ), there are  $c(6,n)$  ways of selecting the n winning numbers from the 6 drawn balls. For one's losing numbers, there are  $c(43,6-n)$  ways to select them from the 43 losing lottery numbers. The total number of combinations giving that result is, as stated above, the first number multiplied by the second. The expression is therefore  $c(49,6)/(c(6,n)*c(43,6-n))$ . This gives the following results (remember that odds are the reciprocal of probability):

Score	Calculation	Exact Probability	Approximate Decimal Odds
0	$c(49,6)/(c(6,0)*c(43,6))$	435461/998844	1 in 2.29

1	$c(49,6)/(c(6,1)*c(43,5))$	68757/166474	1 in 2.42
2	$c(49,6)/(c(6,2)*c(43,4))$	44075/332948	1 in 7.55
3	$c(49,6)/(c(6,3)*c(43,3))$	8815/499422	1 in 56.66
4	$c(49,6)/(c(6,4)*c(43,2))$	645/665896	1 in 1032.4
5	$c(49,6)/(c(6,5)*c(43,1))$	43/2330636	1 in 54201
6	$c(49,6)/(c(6,6)*c(43,0))$	1/13983816	1 in 13983816

## Powerballs And Bonus Balls

Many lotteries have a "powerball" (or "bonus ball"). If the powerball is drawn from a **different pool of numbers** from the main lottery, then simply multiply the odds by the number of powerballs. For example, in the 6 from 49 lottery we have been discussing in this article, if there were 10 powerball numbers, then the odds of getting a score of 3 and the powerball would be 1 in  $56.66 \times 10$ , or 566.6 (the probability would, of course, be divided by 10, to give an exact value of  $8815/4994220$ ).

Where more than 1 powerball is drawn from a separate pool of balls to the main lottery (e.g. the Euromillions game), the odds of the different possible powerball matching scores should be calculated using the method shown in the "other scores" section above (in other words, treat the powerballs like a mini-lottery in their own right), and then multiplied by the odds of achieving the required main-lottery score.

If the powerball is drawn from the **same pool of numbers** as the main lottery, then, for a given target score, one must calculate the number of winning combinations which includes the powerball. For games based on the Canadian lottery (e.g. Lotto, the UK lottery), after the 6 main balls are drawn, an extra ball is drawn from the same pool of balls, and this becomes the powerball (or "bonus ball"), and there is an extra prize for matching 5 balls + the bonus ball. As described in the "other scores" section above, the number of ways one can obtain a score of 5 from a single ticket is  $c(6,5)*c(43,1)$ , or 258. Since the number of remaining balls is 43, and your ticket has 1 unmatched number remaining,  $1/43$  of these 258 combinations will match the next ball drawn (the powerball) - so there are  $258/43 = 6$  ways of achieving it. Therefore, the odds of getting a score of 5 + powerball are  $c(49,6)/6 = 1$  in 2,330,636.

Of the 258 combinations that match 5 of the main 6 balls, in  $42/43$  of them the remaining number will not match the powerball, giving odds of  $c(49,6)/(258*(42/43)) = 166474/3$  (approx 55491.33) for obtaining a score of 5 without matching the powerball.

Using the same principle, to calculate the odds of getting a score of 2 + powerball, calculate the number of ways to get a score of 2 as  $c(6,2)*c(43,4) = 1,851,150$  then multiply this by the probability of one of the remaining four numbers matching the bonus ball - which is  $4/43$ .  $1,851,150*(4/43) = 172,200$ , so the probability of obtaining the score of 2 + bonus ball is  $172,200/c(49,6) = 1025/83237$ . This gives approximate decimal odds of 81.2.

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## Mega number

Many states have set up Lottery games that award a substantial prize, often in the tens or even hundreds of millions of dollars to some lucky winner or group of winners. Such games often go by the name of Lotto or Super Lotto or even Mega Millions. In a typical game, either five or six rubber balls will be randomly selected by a machine from a set of 47, 49, or a similar valued number of balls. The number of balls is chosen so that the chance of a random player matching all of the numbers is anywhere from 1 in about 14 million (for a 6/49) game to something on the order of 1 in one hundred million or greater, for certain Mega games or Powerball games.

In a simple Lotto type game, the order in which the numbers are drawn from the machine does not matter, so if a ticket holder has the numbers 1,2,3,4 and 5, and if the order in which the machine selects these numbers is 5,2,4,3, and 1; then the ticket is still a winner. However in a mega game, in order to win the main prize, the player must match the first five numbers drawn in any order, but then must also match the last number drawn exactly. For the game which is currently offered in California under the name Super Lotto, the first five numbers drawn are from a set of 47 white rubber balls, which are selected by one machine, and the mega number is chosen as just one ball from a set of 27 purple balls, which is selected by a second machine. The Mega Millions game is similar, but it uses a set of 56 balls for the first five drawn, and another set of 46 for the final ball, known as the mega number.

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## Numbers game

The *Numbers Game* or *Policy Racket* is a lottery game where the bettor attempts to pick three or four numbers from zero to nine that will be randomly drawn. Before the advent of state-operated lotteries, the gambler would place his or her bet with a bookie at a candy shop or a tavern. Today, state lotteries offer this game as the Daily Numbers Game. A runner carries the money and betting slips between the betting parlors and the headquarters.

Different policy banks would offer different payout ratios, though a payoff of 600 to 1 was typical. One of the game's attractions to low income and working class bettors was the ability to bet small amounts of money. Usually a gambler could bet as little as ten cents with the possibility of winning sixty dollars. Also bookies, unlike state lotteries, could extend credit to the bettor.

In the northeastern United States this game was known as the "Nigger Pool". This reflected the belief that the game originated in black neighborhoods.

One of the problems of the early game was to find a way to draw a random number that the bookie could not be accused of choosing unfairly. One method was to take the last three numbers in the published daily balance of the United States Treasury. When the Treasury began rounding off the balance many bookies began to use the "mutuel" number. This number consisted of the last dollar digit of the daily total handle of the Win, Place and Show bets at a local race track, read from top to bottom.

For example, if the daily handle was:

- Win.. \$1001.23

- Place. \$582.56
- Show... \$27.61

then the daily number was 127.

This variant of the numbers game, where the number depends on an event beyond the bookie's control, is sometimes called a policy game.

In 1875, a report of a select committee of the New York State Assembly stated that "the lowest, meanest, worst form, however, which gambling takes in the city of New York, is what is known as policy playing." [1]

Today, state lotteries use mechanical devices to draw the number. They also pay under a parimutuel betting system.

Since most bookies in the United States operate outside of the law, there is no way to gauge what effect the legalization of state-run gambling has had on the Numbers Game. Some gamblers still prefer to play with a bookie for a number of reasons. Among them are a guaranteed payoff, betting on credit, and calling in one's bet on the telephone.

## Payout

In illegal numbers games, typically certain more popular numbers, known as cut numbers, have reduced payoffs. A player's chance of winning on one number is only one in 999; his winnings may pay off at 800 to 1.

1. ^ Holice and Debbie, Our Police Protectors: History of New York Police **Chapter 13, Part 1**. Accessed on 4/2/2005

Categories: Lotteries

## Punchboard

A *punchboard* is a game board, primarily consisting of a number of holes which was used once for lottery playings.

### Contents

- 1 History
- 2 Decline in use
- 3 Popular again
- 4 After the war
- 5 Larceny
- 6 Other references in popular culture

## **History**

Punchboards were originally used in the eighteenth century for gambling purposes. A local tavern owner would construct a game board out of wood, drill small holes in it, and fill each hole with a small piece of paper. After a patron buys the punchboard, he would puncture one of the holes in the paper with a nail. If the game piece contained a winning number, the patron won the prize.

## **Decline in use**

In the nineteenth century, gamblers eventually drilled into their own holes (they knew where the big money was, because they made the board). The punchboard's use started to decline.

## **Popular again**

In the late 1800s, a new type of punchboard was introduced. This one involved putting paper in both the front and back of the hole (to help prevent operators from cheating). These new punchboards became popular to buy at drugstores, and they were sold with a metal stylus. The punchboard soon became increasingly similar to today's lottery tickets.

Soon, the punchboard became cheap and easy to assemble, and the industry flourished. Noted gambling author John Scarne estimates that 30 million punchboards were sold in the years between 1910 to 1915. He also estimates that 50 million punchboards were sold in 1939 alone, during the peak of their popularity.

## **After the war**

After World War II, use of the punchboard as a gambling tool began to decline because many people started to frown at its gambling-like nature, and the punchboard was outlawed in many states. However, the use of punchboards for advertisement were starting to gain popularity. Many companies started hiding goods such as bottles of beer and cigarettes inside punchboards. Zippo lighters reportedly sold more than 300,000 lighters through punchboard advertising between 1934 and 1940.

## **Larceny**

People have been cheating on punchboards ever since they were first invented. Many operators know where the big prize holes are; they used to create punchboards with very few holes so they could easily track the big money.

Other gamblers could make a dirty deal with the costumers: give the costumer a "map" of where the big prizes are on the punchboard. This came to prevention by the use of serial numbers: the costumer would present the slip to the operator, and if the serial numbers matched, the costumer was declared a winner.

## Other references in popular culture

The movie *The Flim-Flam Man* starring George C. Scott involved the use of illegal gambling through punchboards.

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## Raffle

A *raffle* is a competition in which people buy numbered tickets.

A raffle is often be held in order to raise funds for a specific event, charity or occasion.

The raffle either involves many people buying tickets for the chance to win a certain prize. At a set date the winners are drawn from a bucket containing copy of every number or a *tombola*. The bought ticket is then checked against a collection of prizes with numbers attached to them.

In the United Kingdom, raffles are occasionally used to circumvent licensing laws. While only licensed premises are permitted to sell alcohol, there is no restriction on the offering of alcohol as prizes in contests. As such, at certain events, attendees are able to enter a raffle, for which they purchase a ticket and then retrieve their prize, which is invariably an alcoholic drink.

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## Sweepstakes

A *sweepstake* is technically a lottery in which the prize is financed through the tickets sold. In the United States the word has become associated with promotions where prizes are given away for free. In other words, they specifically do not require a purchase to enter (these are called *prize draws* in the United Kingdom). Sweepstakes sponsors are very careful to dis-associate themselves from any suggestion that players must pay to enter, as this would bring them into conflict with lottery laws. The popularity of the term sweepstakes may derive from the Irish Sweepstakes, which was very popular throughout the world from the 1930s to the 1980s.

Sweepstakes typically involve aggressive enticements to enter a contest for fantastically large prizes; there should be no cost to the entrant to enter for the prize, with the exception



of possibly being placed on a promotional mailing list. Winners should also not be required to pay a fee of any type to receive their prize.

Among the commonly known sweepstakes in the United States are the American Family Publishers Sweepstakes, Publisher's Clearing House Sweepstakes and Reader's Digest Sweepstakes, each of which strongly persuade entrants to purchase magazine subscriptions by placing stickers on contest entry cardstock, while promising multi-million dollar winners who will be "announced on TV". The American Family Publishers sweepstakes has traditionally used paid advertisements during NBC's The Tonight Show to announce its grand prize winners (for many years, its celebrity spokesman was Ed McMahon).

Sweepstakes are also used by fast-food restaurants to boost business. One of the most popular has been the McDonald's Monopoly promotion. Soda companies also run sweepstakes, including the Pepsi Billion Dollar Sweepstakes game and the Pepsi Stuff loyalty rewards program that allowed Pepsi drinkers to accumulate points from packages and cups and redeem them for high-quality, free merchandise. Pepsi Stuff was Pepsi's largest and most successful long-term promotion ever and it ran for many years in the US and in many countries around the world.

In 2002 sweepstakes took a new turn, FlexPoint Source, LLC took 2 concepts and formed them in to one. FlexPoint Source took phonecards and attached a sweepstakes using a peel-and-win printing process. This has taken sweepstakes to a whole new height. FlexPoint Source also developed a way so that customers could redeem prizes at the point-of-purchase, which greatly increased sales.

Because of the perceived deceptive nature of sweepstakes, they are heavily regulated. The US, Canada, and individual US states all have laws covering sweepstakes, resulting in special rules depending on where the entrant lives. Notably, Canada and several European countries require entrants to solve a mathematical puzzle, making it a contest of skill, in order to overcome requirements that would classify sweepstakes as a form of gambling.

Sweepstakes must therefore be carefully planned to not only comply with local laws but curtail forms of entrant fraud and abuse. Before home computers were popular, a common method of entry was a mailed index card with the entrant's name and address. Massive computer-printed entries made a new requirement of "hand-printed". Laser printers able to mimic ink pen writing are also a problem for sponsors. Entering sweepstakes by mail is still very popular, although many also enter online as well. From time to time, mistaken sweepstakes design leads to more winning entries than intended, and publicity fallout for the sponsoring brand can be immense.

There is also a tradition of office sweepstakes, which usually take place over large sporting events (Melbourne Cup, Grand National, World Cup etc), where you put in a stake into the pot, and get a horse/team drawn out of the hat. The winner then takes the pot. A person who enjoys entering sweepstakes as a hobby is called a sweeper.

## **Etymology**

The term originated in horse-racing, where each entrant would put up a stake, and the winner would sweep all stakes. The non-plural form sweepstake is probably a back-formation; compare the Belmont Stakes.

## **Sweepstakes on the Internet**

Nowadays it is very convenient to enter sweepstakes over the Internet. There are many sweepstakes directories, some offering advanced features such as tracking which sweepstakes have been entered and possibly providing many different categorizations for the competitions listed. The most popular sites draw hundreds of thousands of visitors each day, also with a very large registered user base. For some entering sweepstakes is a hobby, perhaps even an obsession, where practicers compete against each other in the number of sweepstakes they have entered and even use software which can partly automate filling in the entry forms. Pepsi Stuff was one of the first major consumer programs to have a dedicated web site. In recent years Pepsi Stuff was largely administered online through a partnership with Yahoo!.

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## **Video Lottery Terminal**

A *Video Lottery Terminal* or *VLT* is a gambling machine that allows gamblers to bet on the outcome of a video game.

A VLT is similar to a slot machine, except that it is connected to a centralized computer system that determines the outcome of each wager using a random number generator. Although the outcome of each wager is random, VLT operators are able to program in advance the total amount and number of payouts that its central computer system will allow at its connected VLTs. In this manner, VLTs can be thought of as computerized scratch-off lottery tickets.

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## **Canada**

VLTs were introduced by Canadian provinces in the early 1990s, and as of 2005 all provinces permit VLTs due to the massive revenues they generate, except British Columbia and Ontario. Ontario has recently passed legislation that could allow VLTs in the near future, however. VLTs are located in licenced establishments that are not accessible to minors.

The prevalence of VLTs in Canada has prompted criticism both domestically and abroad. VLTs are claimed to be the crack cocaine of gambling because of their ability to cause gambling addictions for significant segment of the population. Some critics contend that the massive social costs brought on by VLTs actually cause the provinces to lose a greater sum than is generated by the machines. VLTs are accepted by the majority of the Canadian population however because any harm associated with VLTs is theoretically isolated with the abuser. The attitude being "Live and Let Live."

The payouts offered by VLTs are invariably poor. For example, in Las Vegas most slot machines offer a theoretical payout of approximately 98 cents for every dollar they take in (98%). By contrast, Canadian VLTs pay out 74% of their intake, on average. This varies by province - in Saskatchewan, the average payout is 53%.

## **United States**

South Dakota became, on October 16, 1989, the first U.S. State to legalize VLTs. In a unique arrangement with private industry, the machines are owned by private companies but monitored by the South Dakota Lottery via a centralized computer system that assures the integrity of the games. The state imposes a substantial tax on the Net Income (Gross Income minus any player winnings) of the games. Beginning in 1992, several attempts have been made to repeal South Dakota's video lottery. Most recently, in May 2006, petitions were filed containing over 21,000 signatures in order to place the issue on the November ballot.

In 1990, West Virginia introduced the concept of racinos when it allowed MTR Gaming Group to add VLTs to Mountaineer Race Track & Gaming Resort in Chester.

Other states that have legalized video lottery are Oregon, Louisiana, West Virginia, and Montana. It should be noted, however, that while it's common to call all these games 'video lottery,' Louisiana's games are not part of the Louisiana Lottery. Instead they are regulated by an appointed Louisiana Gaming Control Board. The Louisiana State Police are charged with enforcing the official rules and regulations. As in South Dakota, the games are privately owned, but monitored by a state owned central computer system.

Some U.S. States do not allow VLTs and those that do have attracted the same criticism the Canadian provinces have. However, some non-players have expressed tolerance for the machines.

## Other terminology

In certain jurisdictions, VLTs are known as Video Gaming Devices (VGD) or Video Slot Machines. Most VLTs are multi-game devices, allowing the players to select, from an on-screen menu, the game(s) they wish to play. They are also known as poker machines and fruit machines in some areas.

## See also

- Video poker
- Slot machine

**Categories:** Lotteries | Slot machines

# Poker

*Poker* is a card game, the most popular of a class of games called vying games, in which players with fully or partially concealed cards make wagers into a central pot, which is awarded to the player or players with the best combination of cards or to the player who makes an uncalled bet. Poker can also refer to video poker, a single-player game seen in casinos much like a slot machine, or to other games that use poker hand rankings.

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## Game play

Poker is played in hundreds of variations, but most follow the same basic pattern of play.

The right to deal each hand typically rotates among the players and is marked by a token called a button or buck. In a casino a house dealer handles the cards for each hand, but a button (typically a white plastic disk) is rotated among the players to indicate a nominal dealer to determine the order of betting.

For each hand, one or more players are required to make forced bets to create an initial stake for which the players will contest. The dealer shuffles the cards, he or another player cuts, and the appropriate number of cards are dealt to the players one at a time. After the initial deal, the first of what may be several betting rounds begins. Between rounds, the players' hands develop in some way, often by being dealt additional cards or replacing cards previously dealt. At the end of each round, all bets are gathered into the central pot.

At any time during a betting round, if a player makes a bet, opponents are required to match it or to surrender their cards and forfeit their interest in the pot. If one player bets and no opponents choose to match the bet, the deal ends immediately, the bettor is awarded the pot, no cards are required to be shown, and the next deal begins. The ability to win a pot without showing a hand makes bluffing possible. Bluffing is a primary feature of poker, one that distinguishes it from other vying games and from other games that make use of poker hand rankings.

At the end of the last betting round, if more than one player remains, there is a showdown, in which the players reveal their previously hidden cards and evaluate their hands. The player with the best hand according to the poker variant being played wins the pot.

Most popular poker variants can be loosely classified as draw poker, stud poker, or community card poker; miscellaneous poker games exist. The most commonly played games in these categories are five-card draw, seven-card stud, and Texas hold 'em, respectively.

See the article on betting for detailed rules regarding forced bets, betting actions, limits, stakes, and all-in situations.

See the articles on poker variants and hand rankings for details about the order of play and hand rankings for the most common poker variants.

## History

The history of poker is a matter of some debate. The name of the game likely descended from the French *poque*, which descended from the German *pochen* ('to knock'), but it is not clear whether the origins of poker itself lie with the games bearing those names. It closely resembles the Persian game of *as nas*, and may have been taught to French settlers in New Orleans by Persian sailors. It is commonly regarded as sharing ancestry with the Renaissance game of *primero* and the French *brelan*. The English game *brag* (earlier *bragg*) clearly descended from *brelan* and incorporated bluffing (though the concept was known in other games by that time). It is quite possible that all of these earlier games influenced the development of poker as it exists now.

English actor Joseph Crowell reported that the game was played in New Orleans in 1829, with a deck of 20 cards, four players betting on which player's hand was the most valuable. Jonathan H. Green's book, *An Exposure of the Arts and Miseries of Gambling* (G. B. Zieber, Philadelphia, 1843), described the spread of the game from there to the rest of the country by Mississippi riverboats, on which gambling was a common pastime. As it spread up the Mississippi and West during the gold rush, it is thought to have become a part of the frontier, pioneering ethos.

Soon after this spread, the full 52-card English deck was used, and the flush was introduced. During the American Civil War, many additions were made, including draw poker, stud poker (the five-card variant), and the straight. Further American developments followed, such as the wild card (around 1875), lowball and split-pot poker (around 1900), and community card poker games (around 1925). Spread of the game to other countries, particularly in Asia, is often attributed to the U.S. military.

The game and jargon of poker have become important parts of American culture and English culture. Such phrases as *ace in the hole*, *ace up one's sleeve*, *beats me*, *blue chip*, *call one's bluff*, *cash in*, *high roller*, **pass the buck**, *poker face*, *stack up*, *up the ante*, *when the chips are down*, **wild card**, and others are used in everyday conversation, even by those unaware of their origins at the poker table.

Modern tournament play became popular in American casinos after the World Series of Poker began, in 1970. Notable champions from these early WSOP tournaments include Johnny Moss, Amarillo Slim, and Doyle Brunson. It was also during that decade that the first serious strategy books appeared, notably *Super/System* by Doyle Brunson (ISBN 1580420818) and *The Book of Tells* by Mike Caro (ISBN 0897461002), followed later by *The Theory of Poker* by David Sklansky (ISBN 1880685000).

Poker's popularity experienced an unprecedented spike in the first years of the twenty-first century, largely because of the introduction of online poker and the invention of the hole-card camera, which turned the game into a spectator sport. Viewers could now follow the action and drama of the game, and broadcasts of poker tournaments such as the World

Series of Poker and the World Poker Tour brought in huge audiences for cable and satellite TV distributors. Because of the increasing coverage of poker events, poker pros are becoming more and more like celebrities, with poker fans all over the world entering into expensive tournaments for the chance to play with them. This increased camera exposure also brings about a new dimension to the poker pro's game—the realization that their actions may be aired later on TV.

Major poker tournament fields have grown dramatically because of the growing popularity of online satellite-qualifier tournaments where the prize is an entry into a major tournament. The 2003 and 2004 WSOP champions, Chris Moneymaker and Greg Raymer, respectively, won their seats to the main event by winning online satellites.

## Quotations

Poker is a microcosm of all we admire and disdain about capitalism and democracy. It can be rough-hewn or polished, warm or cold, charitable and caring or hard and impersonal. It is fickle and elusive, but ultimately it is fair, and right, and just.—Lou Krieger

If you can't spot the sucker within the first half hour at the table, then you are the sucker.—common poker saying, as spoken by Matt Damon in *Rounders*; originally attributed to Amarillo Slim

Whether he likes it or not, a man's character is stripped bare at the poker table; if the other players read him better than he does, he has only himself to blame. Unless he is both able and prepared to see himself as others do, flaws and all, he will be a loser in cards, as in life.—Anthony Holden (from *Big Deal*)

There are few things that are so unpardonably neglected in our country as poker... Why, I have known clergymen, good men, kindhearted, liberal, sincere, and all that, who did not know the meaning of a 'flush'. It is enough to make one ashamed of one's species.—Mark Twain

Nobody is always a winner, and anybody who says he is, is either a liar or doesn't play poker.—Amarillo Slim

They anticipate losing when they sit down and I try my darnedest not to disappoint one of them.—Amarillo Slim

Poker is a game of people. . . . It's not the hand I hold, it's the people that I play with.—Amarillo Slim

Hold-'em is to stud what chess is to checkers.—Johnny Moss

The guy who invented poker was bright, but the guy who invented the chip was a genius.—Julius Weintraub, a.k.a. "Big Julie"

Poker is the game closest to the western conception of life, where life and thought are recognized as intimately combined, where free will prevails over philosophies of fate or of chance, where men are considered moral agents and where - at least in the short run - the important thing is not what happens but what people think happens.—John Lukacs

Last night I stayed up late playing poker with Tarot cards. I got a full house and four people died.—Steven Wright

Cards are war, in disguise of a sport.—Charles Lamb, *Essays of Elia* (1832)

Poker is a godless game, full of random pain.—Andy Bloch

You call this one and it's all over, baby.—Scotty Nguyen, during the 1998 World Series of Poker. Down to him and one other player, he said this to his opponent who called, and it was all over.

Luck favours the backbone, not the wishbone.—Doyle Brunson

Mae West: Is poker a game of chance? W.C. Fields: Not the way I play it.—My Little Chickadee

Yeah, well, sometimes nothing can be a real cool hand.—Cool Hand Luke, showing his stone-cold bluff after winning a 5-card stud pot

The game exemplifies the worst aspects of capitalism that have made our country so great.—Walter Matthau

## See also

- Poker jargon
- List of poker related topics
- Betting (poker)
- Rule variations (poker)
- List of poker variants
- Online poker
- Ring games
- Poker tournament
- List of poker players
- Poker strategy

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# Poker gameplay and terminology

Poker hands | Poker jargon | Aggression | Bad beat | Betting | Big bet | Blind | Bluff | Bug | Burn card | Button | Cards speak | Cheating in poker | Check-raise | Chip race | Chopping the blinds | Closed | Community card | Counterfeit | Curse of Scotland | Dead money | Declaration | Defense | Domination | Draw | Flop | Freeroll | Fundamental theorem of poker | Hand-for-hand | High card by suit | High-low split | Hole cam | Isolation | Kicker | Morton's theorem | One player to a hand | Open-ended | Out | Poker chip | Poker dealer | Poker equipment | Poker probability | Poker psychology | Poker strategy | Poker tournament | Position | Post oak bluff | Pot | Pot odds | Protection | Public cardroom rules | Rake | Ring game | River | Rollout | Rounder | Rule variations | Showdown | Slow play | Split | Steal | Stripped deck | Suited connectors | Table stakes | Tell | Tilt | Turn | Value | Wild card

## Poker hands

A *hand* in poker can mean any of the following:

1. A unit of play consisting of a deal, one or more rounds of betting, and possibly a showdown.
2. A set of five cards with a certain value. For example, the hand Ae 10e 9e 5e 3e is a "flush", a hand that is valuable because each card is of the same suit.
3. A player's set of non-communal cards.

The second and third definitions are often used interchangeably. For example, in Texas hold 'em, a player holding *Ac K`*, with a board of Ae Kc Kf 7` 3f, might say, "my hand is ace-king". However, his best 5-card hand (the portion of the hand which determines value) is the kings-over-aces full house.

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- 1 General rules
- 2 Ranking of hands
- 3 Variations
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## General rules

The following general rules apply to evaluating poker hands, whatever set of hand values are used.

- Individual cards are ranked *A* (high), *K*, *Q*, *J*, *10*, *9*, *8*, *7*, *6*, *5*, *4*, *3*, *2* (low).

Individual card ranks are often used to evaluate hands that contain no pairs or other special combinations, or to rank the kickers of otherwise equal hands. The Ace is ranked low in ace-to-five and ace-to-six lowball games.

- Suits have no value.

The suits of the cards are mainly used in determining whether a hand fits a certain category (specifically the Flush and Straight flush hands). In most variants, if two players have hands that are identical except for suit, then they are tied and split the pot. Sometimes a ranking called high card by suit is used for randomly selecting a player to deal.

- A hand always consists of five cards.

In games where more than five cards are available to each player, hands are ranked by choosing some five-card subset according to the rules of the game, and comparing that five-card hand against the five-card hands of the other players. Whatever cards remain after choosing the five to be played are of no consequence in determining the winner. (For example, when comparing identical full houses, there are no "kickers".)

- Hands are ranked first by category, then by individual card ranks.

That is, even the minimum qualifying hand in a certain category defeats all hands in all lower categories. The smallest Two pair hand, for example, defeats all hands with just One pair or No pair. Only between two hands in the same category are card ranks used to break ties. The highest single card in each flush or straight is used to break ties (the Ace-through-five straight is the lowest straight, the Ace being a low card in this context). Within two Two pair hands, the higher pairs are first compared. If they tie, then the secondary pairs are compared, and then finally the kicker.

- For ease of explanation, hands are shown here neatly arranged, but a poker hand has the same value no matter what order the cards are received in.

## Ranking of hands

### **The standard ranking of poker hands are:**

- Royal flush: Five cards in sequence and of the same suit, starting from the Ace down to the 10. Example:  $A^h K^h Q^h J^h 10^h$  (Note: A Royal Flush is not a category of hand in and of itself, it is simply the highest-valued straight flush, and thus also the highest-valued hand. Since it is mentioned often in the context of hand rankings, it is worth noting in this list.)
- Straight flush: Any five cards in sequence and of the same suit. Example:  $Q^h J^h 10^h 9^h 8^h$
- Four of a kind: A hand with four cards of the same rank. Example:  $4^c 4^f 4^e 4^s 9^e$
- Full house: A hand with three cards of one rank and two of another. Example:  $8^c 8^f 8^s K^e K^h$  (Often described as the three-of-a-kind rank full of the pair rank. The example is eights full of kings)
- Flush: Five cards of the same suit. Example:  $K^h J^h 8^h 4^h 3^h$
- Straight: Five cards in sequence. (The ace can be considered higher than the king or lower than the two.) Example:  $5^f 4^e 3^s 2^f A^f$

- Three of a kind: Three cards of the same rank. Example: 7c 7e 7` Kf 2`
- Two pair: Two cards of one rank, two of another. Example: Ac Af 8e 8` Q`
- One pair: Two cards of the same rank. Example: 9e 9` Ac J` 4e
- High card: Also known as a "no pair" hand. The following example is considered "Ace high." Example: Af 10f 9` 5c 4c

The hands are ranked in this order because of their relative probabilities, with rarer hands ranking above more common hands. See also Poker probability. In addition, all 5 card poker hands can be collapsed down to 7,462 distinct equivalence classes. For example, there are 24 different ways to create an Aces over Kings Full House hand, but since they all hold the same poker ranking value, they can be collapsed into the same equivalence class. In this way, all 2,598,960 unique five card poker hands can be shrunk down to just 7,462 distinct classes of hands.

## Variations

Some games called lowball or *low poker* are played where players strive not for the highest ranking of the above combinations but for the lowest ranking hand. There are three methods of ranking low hands, called Ace-to-five low, Deuce-to-seven low, and Ace-to-six low. The *ace-to-five* method is most common. A sub-variant within this category is *high-low poker*, in which the highest and lowest hands split the pot (with the highest hand taking any odd chips if the pot does not divide equally). Sometimes straights and/or flushes count in determining which hand is highest but not in determining which hand is lowest (being reckoned as a no-pair hand in the latter instance), so that a player with such a holding can win both ways and thus take the entire pot.

Certain variants use hands of only three cards, either high or low. Three-card low hands can be ranked by any of the three methods above, although with three cards they become *ace-to-three* (rather than ace-to-five), *deuce-to-five*, and *ace-to-four*. The ace-to-three method is the most common, just as the ace-to-five method is most common method for five cards. Three-card high hands are ranked in one of two ways: either with or without straights and flushes. Without them (which is the most common, and used such games as Chinese poker), the hands are simply *no pair*, *one pair*, and *three of a kind*. If you add straights and flushes, the order of hands should be changed to reflect the correct probabilities: *no pair*, *one pair*, *flush*, *straight*, *three of a kind*, *straight flush*. This order is used, for example, in Mambo stud.

Some poker games are played with a deck that has been stripped of certain cards, usually low-ranking ones. For example, the Australian game of Manila uses a 32-card deck in which all cards below the rank of 7 are removed, and Mexican stud removes the 8s, 9s, and 10s. In both of these games, a flush ranks above a full house, because having fewer cards of each suit available makes flushes rarer.

Some games add one or more non-standard poker hands, bugs, wild cards, or have other exceptions to the standard rules above. For example, in the game of Pai gow poker as played in Nevada, a **wheel** (5-4-3-2-A) ranks above a king-high straight, but below an ace-high straight.

## See also

- List of slang names for poker hands
- Poker probability
- Non-standard poker hand

# Rank of hands

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See the article on non-standard poker hands for more information about non-standard poker hands, including the use of wild cards and bugs.

In poker, certain combinations of cards, or hands, outrank other hands, based on the frequency with which these combinations appear. The player with the best poker hand at the showdown wins the pot.

Although used in poker, these hand rankings are also used in a variety of other card games.

## Standard ranking

A poker hand consists of five cards, no more, no less. Although in many poker games each player has seven (or more) cards to play, the sixth and seventh cards are not used to determine the winner. If two or more players have identical five-card hands, they divide the pot equally between them.

The individual cards are ranked ace (high), king, queen, jack, 10, 9, 8, 7, 6, 5, 4, 3, 2 (low). An ace may also be used as a low card, below the 2, in making a straight or a straight flush. Suits have no rank in poker, and are not used to determine the winner of a hand.

## Royal flush

A *royal flush* is a poker hand containing an ace, king, queen, jack, and a 10 of the same suit (for example  $A`K`Q`J`10`$ ). Because it is both a straight (having five cards in sequential rank) and a flush (having five cards of the same suit), it is also known as an *ace-high straight flush*.

## Straight flush

A *straight flush* is a poker hand such as  $Q`J`10`9`8`$ , which contains five cards in sequence, all of the same suit. Two such hands are compared by their high card in the same way as are straights. The low ace rule also applies:  $5f\ 4f\ 3f\ 2f\ Af$  is a 5-high straight flush (also known as a "steel wheel"). An ace-high straight flush such as  $Ac\ Kc\ Qc\ Jc\ 10c$  is called a royal flush, and is the highest ranking standard poker hand.

Examples:

- $7e\ 6e\ 5e\ 4e\ 3e$  <sup>beats</sup>  $5`4`3`2`A`$ 
  - $Jc\ 10c\ 9c\ 8c\ 7c$  *ties*  $Jf\ 10f\ 9f\ 8f\ 7f$

## Four of a kind

*Four of a kind* is a poker hand such as  $9c\ 9`9f\ 9e\ Je$ , which contains four cards of one rank, and an unmatched card. It is also called quads. It ranks above a full house and below a straight flush. Higher ranking four of a kinds defeat lower ranking ones. Between two equal sets of four of a kinds (possible in wild card and community card games), the kicker determines the winner.

Examples:

- $10c\ 10f\ 10e\ 10`5f$  ("four tens" or "quad tens") defeats  $6f\ 6e\ 6`6c\ K`$  ("four sixes")
- $10c\ 10f\ 10e\ 10`Qc$  ("four tens, queen kicker") defeats  $10c\ 10f\ 10e\ 10`5f$  ("four tens with a five")

## Full house

A *full house* is a poker hand such as  $3c\ 3'\ 3f\ 6c\ 6e$ , which contains three matching cards of one rank, plus two matching cards of another rank. It ranks above a flush and below four of a kind. Between two full houses, the one with the higher ranking set of three wins. If two have the same set of three (possible in wild card and community card games), the hand with the higher pair wins. Full houses are described by the three of a kind (e.g., KKK) and pair (e.g., 99), as in "Kings full of nines" or simply "Kings full".

Examples:

- $10'\ 10e\ 10f\ 4'\ 4f$  ("tens full") defeats  $9e\ 9c\ 9'\ Ae\ Ac$  ("nines full")
  - **$K'\ Kc\ Ke\ 3f\ 3'$  *defeats*  $10'\ 10e\ 10f\ 4'\ 4f$**
- $Qe\ Qf\ Qc\ 8e\ 8c$  ("queens full of eights" or "full house, queens over eights") defeats  $Qe\ Qf\ Qc\ 5'\ 5e$  ("queens full of fives")

## Flush

A *flush* is a poker hand such as  $Qc\ 10c\ 7c\ 6c\ 4c$ , which contains five cards of the same suit, not in rank sequence. It ranks above a straight and below a full house. Two flushes are compared as if they were high card hands. In other words, the highest ranking card of each is compared to determine the winner; if both have the same high card, then the second-highest ranking card is compared, etc. The suits have no value: two flushes with the same five ranks of cards are tied. Flushes are described by the highest card, as in "queen-high flush".

Examples:

- $Ae\ Qe\ 10e\ 5e\ 3e$  ("ace-high flush") defeats  $K'\ Q'\ J'\ 9'\ 6'$  ("king-high flush")
- $Af\ Kf\ 7f\ 6f\ 2f$  ("flush, ace-king high") defeats  $Ae\ Qe\ 10e\ 5e\ 3e$  ("flush, ace-queen high")
- $Qe\ 10e\ 9e\ 5e\ 2e$  ("heart flush") ties  $Q'\ 10'\ 9'\ 5'\ 2'$  ("spade flush")

## Straight

A *straight* is a poker hand such as  $Qc\ J'\ 10'\ 9e\ 8e$ , which contains five cards of sequential rank, of varying suits. It ranks above three of a kind and below a flush. Two straights are ranked by comparing the high card of each. Two straights with the same high card are of equal value, and split any winnings (straights are the most commonly tied hands in poker, especially in community card poker games). Straights are described by the highest card, as in "queen-high straight" or "straight to the queen".

Examples:

- $8'\ 7'\ 6e\ 5e\ 4'$  ("eight-high straight") defeats  $6f\ 5'\ 4f\ 3e\ 2c$  ("six-high straight")
  - **$8'\ 7'\ 6e\ 5e\ 4'$  *ties*  $8e\ 7f\ 6c\ 5c\ 4e$**

A hand such as  $Ac\ Kc\ Qf\ J'\ 10'$  is an ace-high straight, and ranks above a king-high straight such as  $Ke\ Q'\ Je\ 10e\ 9f$ . But the ace may also be played as a 1-spot in a hand such as  $5'\ 4f\ 3f$

2`Ac, called a **wheel** or five-high straight, which ranks below the six-high straight 6`5c 4c 3e 2e. The ace may not "wrap around", or play both high and low in the same hand: 3c 2f A`K`Qc is not a straight, but just ace-high no pair.

### Three of a kind

*Three of a kind* is a poker hand such as 2f 2` 2e K` 6`, which contains three cards of the same rank, plus two unmatched cards. It ranks above two pair and below a straight. Higher ranking three of a kind defeat lower ranking three of a kind. If two hands have the same rank three of a kind (possible in games with wild cards or community cards), the kickers are compared to break the tie.

Examples:

- 8` 8e 8f 5` 3c ("three eights") defeats 5c 5e 5f Qf 10c ("three fives")
- 8` 8e 8f Ac 2f ("three eights, ace kicker") defeats 8` 8e 8f 5` 3c ("three eights, five kicker")

### Two pair

A poker hand such as Je Jc 4c 4` 9`, which contains two cards of the same rank, plus two cards of another rank (that match each other but not the first pair), plus one unmatched card, is called *two pair*. It ranks above one pair and below three of a kind. Between two hands containing two pair, the higher ranking pair of each is first compared, and the higher pair wins. If both have the same *top pair*, then the second pair of each is compared. Finally, if both hands have the same two pairs, the kicker determines the winner. Two pair are described by the higher pair (e.g., KK) and the lower pair (e.g., 99), as in "Kings over nines", "Kings and nines" or simply "Kings up".

Examples:

- Ke Kf 2c 2f Je ("kings up") defeats Jf J` 10` 10c 9` ("jacks up")
- 9c 9f 7f 7` 6e ("nines and sevens") defeats 9e 9` 5e 5f Kc ("nines and fives")
- 4` 4c 3` 3e Kf ("fours and treys, king kicker") defeats 4e 4f 3f 3c 10` ("fours and treys with a ten")

### One pair

*One pair* is a poker hand such as 4e 4` K` 10f 5`, which contains two cards of the same rank, plus three unmatched cards. It ranks above any high card hand, but below all other poker hands. Higher ranking pairs defeat lower ranking pairs. If two hands have the same rank of pair, the non-paired cards in each hand (the kickers) are compared to determine the winner.

Examples:

- $10c\ 10^{\backslash}\ 6^{\backslash}\ 4e\ 2e$  ("pair of tens") defeats  $9e\ 9c\ Ae\ Qf\ 10f$  ("pair of nines")
- $10e\ 10f\ Jf\ 3e\ 2c$  ("tens with jack kicker") defeats  $10c\ 10^{\backslash}\ 6^{\backslash}\ 4e\ 2e$
- $2f\ 2e\ 8^{\backslash}\ 5c\ 4c$  ("deuces, eight-five-four") defeats  $2c\ 2^{\backslash}\ 8c\ 5e\ 3e$  ("deuces, eight-five-trey")

## High card

A *no-pair* or *high-card* hand is a poker hand such as  $Ke\ Jc\ 8c\ 7f\ 3^{\backslash}$ , in which no two cards have the same rank, the five cards are not in sequence, and the five cards are not all the same suit. It can also be referred to as "nothing" or "garbage," and many other derogatory terms. It ranks below all other poker hands. Two such hands are ranked by comparing the highest ranking card; if those are equal, then the next highest ranking card; if those are equal, then the third highest ranking card, etc. No-pair hands are described by the one or two highest cards in the hand, such as "king high" or "ace-queen high", or by as many cards as are necessary to break a tie.

Examples:

- $Af\ 10f\ 9^{\backslash}\ 5c\ 4c$  ("ace high") defeats  $Kc\ Qf\ Jc\ 8e\ 7e$  ("king high")
- $Ac\ Qc\ 7f\ 5e\ 2c$  ("ace-queen") defeats  $Af\ 10f\ 9^{\backslash}\ 5c\ 4c$  ("ace-ten")
- $7^{\backslash}\ 6c\ 5c\ 4f\ 2e$  ("seven-six-five-four") defeats  $7c\ 6f\ 5f\ 3e\ 2c$  ("seven-six-five-trey")

## Low-poker ranking

### Ace-to-five

*Ace-to-five low* is the most common method for evaluating low hands in poker, nearly universal in U.S. casinos, especially in high-low split games.

As in all low hand games, pairs count against the player. That is, any hand with no pair defeats any hand with a pair; one pair hands defeat two pair or three-of-a-kind, etc. No-pair hands are compared starting with the highest ranking card, just as in high poker, except that the high hand loses. In ace-to-five low, straights and flushes are ignored, and aces play as the lowest card.

For example, the hand  $8-5-4-3-2$  defeats  $9-7-6-4-3$ , because eight-high is lower than nine-high. The hand  $7-6-5-4-3$  defeats both, because seven-high is lower still, even though it would be a straight if played for high. Aces are low, so  $8-5-4-3-A$  defeats  $8-5-4-3-2$ . Also,  $A-A-9-5-3$  (a pair of aces) defeats  $2-2-5-4-3$  (a pair of deuces), but both of those would lose to any no-pair hand such as  $K-J-8-6-4$ . In the rare event that hands with pairs tie, kickers are used just as in high poker (but reversed):  $3-3-6-4-2$  defeats  $3-3-6-5-A$ .



This is called ace-to-five low because the lowest (and therefore best) possible hand is 5-4-3-2-A, called a wheel. The next best possible hand is 6-4-3-2-A, followed by 6-5-3-2-A, 6-5-4-2-A, 6-5-4-3-A, 6-5-4-3-2, 7-4-3-2-A, 7-5-3-2-A, etc.

When speaking, low hands are referred to by their highest ranking card or cards. Any nine-high hand can be called "a nine", and is defeated by any "eight". Two cards are frequently used: the hand 8-6-5-4-2 can be called "an eight-six" and will defeat "an eight-seven" such as 8-7-5-4-A.

Another common notation is calling a particular low hand "smooth" or "rough." A smooth low hand is one where the remaining cards after the highest card are themselves very low; a rough low hand is one where the remaining cards are high. For instance, 8-7-6-3-A would be referred to as a "rough eight," but 8-4-3-2-A would be referred to as a "smooth eight."

High-low split games with ace-to-five low are usually played cards speak, that is, without a declaration. Frequently a qualifier is required for low (typically 8-high or 9-high). Some hands (particularly small straights and flushes) may be both the low hand and the high hand, and are particularly powerful (or particularly dangerous if they are mediocre both ways). Winning both halves of the pot in a split-pot game is called "scooping" or "hogging" the pot. The perfect hand in such a game is called a "steel wheel", 5-4-3-2-A of one suit, which plays both as perfect low and a straight flush high. Note that it is possible--though unlikely--to have this hand and still lose money. If the pot has three players, and one other player has a mixed-suit wheel, and a third has better straight flush, the higher straight flush wins the high half of the pot, and the two wheels split the low half, hence the steel wheel wins only a quarter of a three-way pot.

Ace-to-five lowball, a five-card draw variant, is often played with a joker added to the deck. The joker plays as the lowest card not already present in the hand (in other words, it is a wild card): 7-5-4-Joker-A, for example, the joker plays as a 2. This can cause some interesting effects for high-low split games. Let's say that Alice has 6-5-4-3-2 (called a "straight six")--a reasonably good hand for both high and low. Burt has Joker-6-5-4-3. By applying the rule for wild cards in straights, Burt's joker plays as a 7 for high, giving him a seven-high straight to defeat Alice's six-high straight. For low, the joker plays as an ace--the lowest card not in Burt's hand--and his hand also defeats Alice for low, because his low hand is 6-5-4-3-A, lower than her straight six by one notch. Jokers are very powerful in high-low split games.

## Wheel

A *wheel* or *bicycle* is the poker hand 5-4-3-2-A, regardless of suit, which is a five-high straight, the lowest-ranking of the straights.

In ace-to-five low poker, where aces are allowed to play as low and straights and flushes do not count against a hand's "low" status, this is the best possible hand. In high/low split games, it is both the best possible low hand and a competitive high hand.

The origin of the name "Wheel" probably derives from the Bicycle playing cards issued by the U.S. Playing Card Company.

## Ace-to-six

*Ace-to-six low* is a method for evaluating low hands in poker. It is not as commonly used as the ace-to-five low method, but it is common among home games in the eastern United States, and also common in the United Kingdom (it is the traditional ranking of London lowball, a stud poker variant).

As in all lowball games, pairs and trips are bad: that is, any hand with no pair defeats any hand with a pair; one pair hands defeat two pair or trips, etc. No-pair hands are compared starting with the highest ranking card, just as in high poker, except that the high hand loses. In ace-to-six low, straights and flushes count for high (and are therefore bad), and aces play as the lowest card.

For example, the hand 8-5-4-3-2 defeats 9-7-6-4-3, because eight-high is lower than nine-high. The hand 7-6-5-4-2 defeats both, because seven-high is lower still. The hand 7-6-5-4-3 would lose, because it is a straight. Aces are low, so 8-5-4-3-A defeats 8-5-4-3-2. Also, A-A-9-5-3 (a pair of aces) defeats 2-2-5-4-3 (a pair of deuces), but both of those would lose to any no-pair hand such as K-J-8-6-4. In the rare event that hands with pairs tie, kickers are used just as in high poker (but reversed): 3-3-6-4-2 defeats 3-3-6-5-A.

It is called ace-to-six low because the best possible hand is 6-4-3-2-A, followed by 6-5-3-2-A, 6-5-4-2-A, 6-5-4-3-A, 7-4-3-2-A, 7-5-3-2-A, etc.

When speaking, low hands are referred to by their highest ranking card or cards. Any nine-high hand can be called "a nine", and is defeated by any "eight". Two cards are frequently used: the hand 8-6-5-4-2 can be called "an eight-six" and will defeat "an eight-seven" such as 8-7-5-4-A.

A wild card plays as whatever rank would make the lowest hand. Thus, in 6-5-Joker-2-A, the joker plays as a 3, while in Joker-5-4-3-2 it would play as a 7 (an ace or six would make a straight).

High-low split games with ace-to-six low are usually played with a declaration.

## Deuce-to-seven

*Deuce-to-seven low* is a method for evaluating low hands in poker. It is often called "Kansas City" low or just "low poker". It is almost the direct opposite of standard poker: high hand loses. It is not as commonly used as the ace-to-five low method.

As in all lowball games, pairs and trips are bad: that is, any hand with no pair defeats any hand with a pair; one pair hands defeat two pair or trips, etc. No-pair hands are compared starting with the highest ranking card, just as in high poker, except that the high hand loses. In deuce-to-seven low, straights and flushes count for high (and are therefore bad). Aces are always high (and therefore bad).

For example, the hand 8-5-4-3-2 defeats 9-7-6-4-3, because eight-high is lower than nine-high. The hand 7-6-5-4-2 defeats both, because seven-high is lower still. The hand 7-6-5-4-3 would lose, because it is a straight. Aces are high, so Q-8-5-4-3 defeats A-8-5-4-3. In the rare event that hands with pairs tie, kickers are used just as in high poker (but reversed): 3-3-6-4-2 defeats 3-3-6-5-2.

A special rule is that a wheel is not considered a straight: *A-5-4-3-2* is simply ace-high no pair (it would therefore lose to any king-high, but would defeat *A-6-4-3-2*).

It's called deuce-to-seven low because the best possible hand is *7-5-4-3-2*, followed by *7-6-4-3-2*, *7-6-5-3-2*, *7-6-5-4-2*, *8-5-4-3-2*, *8-6-4-3-2*, etc.

When speaking, low hands are referred to by their highest ranking card or cards. Any nine-high hand can be called "a nine", and is defeated by any "eight". Two cards are frequently used: the hand *8-6-5-4-2* can be called "an eight-six" and will defeat "an eight-seven" such as *8-7-5-4-2*.

Another common notation is calling a particular low hand "smooth" or "rough." A smooth low hand is one where the remaining cards after the highest card are themselves very low; a rough low hand is one where the remaining cards are high. For instance, *8-7-6-4-2* would be referred to as a "rough eight," but *8-5-4-3-2* would be referred to as a "smooth eight."

Wild cards are rarely used in deuce-to-seven games, but if used they play as whatever rank would make the lowest hand. Thus, in *7-6-Joker-3-2*, the joker plays as a 4, while in *Joker-5-4-3-2* it would play as a 7 (a six would make a straight, and an ace would make ace-five high).

High-low split games with deuce-to-seven low are usually played with a declaration.

## See also

- Non-standard poker hands
- Poker jargon
- List of slang names for poker hands

Categories: Poker hands

# List of slang names for poker hands

## Contents

- 1 Individual card slang
- 2 Five-card hand slang
- 3 Texas hold'em slang
- 4 Omaha slang
- 5 Flop slang

In poker, players may often use slang terms for particular types of hands. Though most are recent neologisms, others date to poker's antiquity. All such slang terms typically connect a common concept (from life experience or storytelling) to the hand, in order to more easily characterize its general status relative to other hands. The terms range from whimsical to bawdy, with some being of a racist, sexist, homophobic, or otherwise controversial nature.

The following lists should not be confused with "official" poker terminology. See poker jargon.

## Individual card slang

The following table lists slang terms commonly associated with individual cards:

Card	Slang name
A	Bullet, Rocket
K	Cowboy
<i>Ke</i>	Alexander
<i>Kf</i>	Ceasar
K'	David
Kc	Charles (Charlemagne)
Q	Lady, Bitch, Girl, Cowgirl, Mop Squeezer
<i>Qe</i>	<i>Judith</i> (may come from Bible)
<i>Qf</i>	<i>Rachel</i> (may come from Bible)
Q'	Black Bitch
J	<i>Johnny, Jackal, Knave, Hook</i> (play on shape), <i>Valet</i> (from French)
T	Dime
8	<i>Snowman</i> (play on shape), <i>Ocho</i> (from Spanish)
7	Hockey Stick, Walking Stick, Candy Cane ( <i>play on shape</i> )
5	Nickel
4	<i>Sailboat</i> (play on shape)
3	<i>Trey</i> (standard usage, not slang), <i>Crab</i> (play on shape)
2	<i>Deuce</i> (standard usage, not slang), <i>Duck</i> (play on deuce), <i>Quacker</i> (play on duck)

## Five-card hand slang

Refer to the article on Rank of hands (poker) for more information about poker hands.

Hand	Slang name
Straight flush, ace to five	Steel wheel
Four of a kind	<i>Book, Quads</i> (e.g., "Quad Kings")
Four of a kind, aces	<i>Four Pips</i> (Each ace has one pip)
	Full boat, Boat, Full
Full house	<ul style="list-style-type: none"> <li>A full house is commonly referred to as <i>Xs full of Ys</i> where X is the three of a kind and Y is the pair. For example, 555KK would be "fives full of kings"</li> </ul>

Flush of hearts or diamonds	Pink, All Pink
Flush of clubs or spades	Blue, All Blue
Flush of clubs	Golf Bag, Puppy Feet, Puppy Toes, Pups
Straight, ten to ace	Broadway
Straight, ace to five	Wheel, Bicycle, Bike
	<i>Trips</i> (or Trip as in Ted has trip kings.), <i>Set</i>
Three of a kind	<ul style="list-style-type: none"> <li><b>In Hold 'em the term "set" refers to when a player has a pair in the hole and one matching card on the board, with "trips" referring to a pair on the board and one in the hand or three of a kind on the board.</b></li> </ul>
Three of a kind, kings	Klan Rally, Alabama Night Riders, Three Wise Men
Three of a kind, sixes	<i>Devil's hand, Mark of the Beast</i> (referring to the Number of the Beast in the Book of Revelation)
Two pair, aces and eights	<i>Dead Man's Hand</i> (hand held by Wild Bill Hickok when he was shot and killed)
Two pair	<ul style="list-style-type: none"> <li><b>Two pair is commonly shorthanded as <i>Xs up</i> or <i>Xs over Ys</i>, with the top pair as X and the bottom pair as Y. For example, KK998 would be "kings up" or "kings over nines".)</b></li> </ul>
One pair, aces	<i>Aces and spaces</i> (a hand with one pair of aces, and nothing else. Used derogatorily, especially in games such as seven-card stud, where two pair is a typical winning hand)
Outside straight draw	Bobtail, Open-ended <ul style="list-style-type: none"> <li><b>An outside straight draw: cards of two different ranks could complete the high or low end of the straight (e.g., _3456_)</b></li> </ul>
Outside straight flush draw	Big Bobtail
Inside straight draw	Gutshot, Belly buster <ul style="list-style-type: none"> <li><b>An inside straight draw: only cards of a single rank could complete the straight (e.g., 34_67)</b></li> </ul>
Double inside straight draw	Double gutshot, Double belly buster <ul style="list-style-type: none"> <li><b>Double inside straight draw: cards of two different ranks could fill gaps in the straight (e.g., 2_456_8)</b></li> </ul>

## Texas hold'em slang

The following refer to hole (pocket) cards in Texas hold 'em:

Starting hand	Slang name
AA	Pocket Rockets, American Airlines, Bullets, Two Pips <i>Big Slick</i> (originally referred to A`K`, but the name has become common for any Ace-King, especially suited), <i>Anna Kournikova</i> (looks good but rarely wins),
AK	<i>Machine Gun</i> (AK-47), <i>Walking Back to Houston</i> ("I can see you learned to play in Houston. Those Houston players would come to Dallas and play that ace-king, but they'd always end up against a pair of aces. That's why we call that hand 'Walking back to Houston.'" - T.J. Cloutier, quoted by Barry Greenstein)
AQ	Little Slick, Big Chick, Mrs. Slick
AJ	<b>Blackjack</b> , Ajax
A8	<i>Dead Man's Hand</i> (by analogy with Wild Bill's aces and eights)
A3	<i>Baskin-Robbins</i> (plays off the number 31: 31 Flavors), <i>Friday The 13th</i> (An ace played low would be considered equivalent to 1)
A2	Acey-Deucey, Drinking Age
KK	Cowboys, Elvis Presley, King Kong, Ace Magnets
KQ	Marriage, Royalty
KQ suited	Royal Marriage
KQ unsuited	Mixed Marriage
KQ hearts	Valentine's Day
KJ	Kojak, King John
K9	Canine, Dog, Fido, Sawmill
K3	King Crab, Alaska Hand
QQ	Cowgirls, Ladies, Siegfried & Roy, Hilton Sisters, Olsen Twins, Dykes, Girls with curls, Bitches, Mop squeezers
QJ	<i>Maverick</i> (the theme song for the television series "Maverick" speaks of the title character as "livin' on jacks and queens")
QT	<i>Q-Tip</i> , <i>Varkonyi</i> (named after Robert Varkonyi, 2002 World Series of Poker main event champion, who rather liked this hand)
Q9	Quinine
Q7	<i>Computer Hand</i> (according to a computer simulation, the hand of non-connected cards that makes the most straights)
Q3	Gay Waiter, San Francisco Busboy (" <i>Queen with a trey</i> ")
Q3 suited	Posh Gay Waiter
Qe3e	Flaming Gay Waiter
JJ	Fishhooks, Hooks, Jokers
JT	<i>Cloutier</i> (play on name: T. J. Cloutier)
Jc9c	<i>T.J. Cloutier</i> (T.J. flopped three straight flushes with this hand in one year)
J7	<i>Jack Daniel's</i> (Jack Old No. 7)
J6	Railroad Hand
J5	Motown, Jackson Five
J4	<i>Flat Tire</i> ("What's a jack for?")
TT	Dimes, TNT
T5	Five and Dime, Woolworths

T4	Good Buddy, Over and Out, Roger That ( <i>play on radio code 10-4</i> ), Broderick Crawford
T2	Doyle Brunson, Texas Dolly (Brunson won the World Series of Poker with it twice in a row—1976 and 1977)
99	Wayne Gretzky (his jersey number), German Virgin ("nein, nein" means "no, no" in German)
98	Oldsmobile
96	Big Lick, Porno, Dinner for Two ( <i>play on number 69</i> )
96 suited	Prom Night ("Sixty-nine suited")
9e6e	Valentine's Day
95	Dolly Parton ( <i>she sang <b>Workin' 9 to 5</b></i> ), Full-time job
94	Gold Rush, San Francisco (play off the number 49)
93	The Sik
92	Montana Banana
88	Little Oldsmobile, Snowmen, Infinities , Double Infinity
86	Maxwell Smart (Agent 86 in Get Smart)
83	Raquel Welch
77	Hockey Sticks, Candy Canes, Walking Sticks
76	Philadelphia, Union Oil, Trombones (from the song 76 Trombones)
75	Heinz, Ketchup (play on Heinz's 57 varieties)
74	Double Down, Blackjack hand
73	Hachem (named for Joseph Hachem, winner of World Series of Poker, 2005 who won the \$7.5 million prize with this hand when he flopped a straight)
72 offsuit	The Hammer
72 suited	Velvet Hammer
66	Route 66
62	Ainsworth
55	Presto, Speed Limit, Nickels
54	Jesse James, Colt 45 (both play off the number 45), Moneymaker (winning hand of Chris Moneymaker, 2003 World Series of Poker Main Event champion)
52	Bomber (B-52 bomber)
44	Sailboats (looks like two sails), Midlife Crisis, Magnum, Luke Skywalker ("May the fours be with you")
4`4c	Darth Vader ("Dark Side Of The Fours")
33	Crabs, Hooters
32	Can of Corn
32 offsuit	Houta Hand (pronounced like "Hooter", named for a Native American dealer who advocates playing this hand)
22	Ducks ( <i>from "deuces"</i> ), Swans, Sleepers, Quack Quack
any pocket pair	Wired pair, Wired <ul style="list-style-type: none"> <li>• <b>For example, a starting hand of 8-8 might be called "wired eights" or "eights wired"</b></li> </ul>

In addition, two types of hands are called "*blackjack* hands":

- Hands which are naturals in blackjack: any ace with any face or ten.
- Hands whose numeric total is 11: 9-2, 8-3, 7-4, 6-5. (In blackjack, such hands are very good for players.)

## Omaha slang

Omaha slang is not as well developed as Texas Hold'em. The game is not as widely played, and there is a much greater variety of hands, since the pocket is four cards. In the hole in Omaha hold'em:

Hand	Slang name
A-K-4-7	Assault Rifle

## Flop slang

The following terms refer to the flop in Omaha hold'em and Texas hold'em:

Flop	Slang name
Three different suits	Rainbow
Three face cards	<i>Paint</i> (can also be used to refer to any picture card. I need to hit <b>paint</b> indicates somebody who is looking for a J,Q,K.)
Three low cards	<i>Rags, Ragged flop</i> (cards unlikely to have helped anyone)

Categories: Poker hands

## Dead man's hand

In poker, the *dead man's hand* is a two-pair hand, namely "aces and eights." The origin of the name is the five-card-draw hand held by Wild Bill Hickok at the time of his murder, which is accepted to have included the aces and eights of both of the black suits (sometimes considered "bullets").

There are various claims as to the identity of Hickok's fifth card, and there is also some reason to believe that he had discarded one card, the draw was interrupted by the shooting, and he never got the fifth card due to him.

The Stardust in Las Vegas had a 5 of diamonds on display as the 5th card; in the HBO television series *Deadwood*, a 9 of diamonds is used; the modern town of Deadwood, South Dakota also uses the 9 of diamonds in displays; and Ripley's Believe it or Not shows a queen of clubs.

For other poker hands that have found a place in lore, see List of slang names for poker hands.



## The hand in popular culture

This ominous hand is sometimes used as a portent of death in songs, books and in movies that include

Stagecoach (where a doomed character held the ace of diamonds in place of one black ace, and the queen of hearts as fifth card)

The Plainsman (where Gary Cooper as Hickok held the king of spades as the fifth card)

One Flew Over the Cuckoo's Nest (in Ken Kesey's novel McMurphy has a dead man's hands tattoo)

The collectible card game Doomtown defines a Dead Man's Hand as having the Jack of Diamonds as the fifth card. In this game, it is considered to outrank any other poker hand, unless an opponent plays the card "That's Two Pair!" to reduce its rank.

The Man Who Shot Liberty Valance, and

Dick Tracy

Along Came a Spider

A Party Poker ad shows a man playing poker against an opponent holding a dead man's hand with a Five of Diamonds as the fifth card. The camera then pans out to show that the setting is a morgue and the player holding the dead man's hand is a corpse

Dead Man's Hand is the name of a first-person shooter for the Xbox set in the Old West, which features train trips and shoot-outs on horseback.

Dead Man's Hand Popular Rockabilly band which originated in Jacksonville, FL and later relocated to Los Angeles known for their blues-rich sound and driving rhythm. Their 1999 full length album, Days You Loved Me, won much acclaim amongst critics and roots music enthusiasts alike.

Bob Dylan's 1962 song "Rambling Gambling Willie" shows the tradition in these lines:  
It was late one evenin' during a poker game.

A man lost all his money; he said Willie was to blame.

He shot poor Willie through the head, which was a tragic fate.

When Willie's cards fell on the floor, they were aces backed with eights.

And, in the next verse:

So all you rovin' gamblers, wherever you might be,

The moral of this story is very plain to see.

Make your money while you can, before you have to stop,

For when you pull that dead man's hand, your gamblin' days are up.

Bob Seger's 1980 song "Fire Lake" make reference to the legend in these lines:

Who wants to play those eights and aces

Who wants a raise

Who needs a stake

Who wants to take that long shot gamble

And head out to fire lake

Motörhead mentions the hand in their 1980 song Ace of Spades in the final verse:

Pushing up the ante, I know you've got to see me,

Read 'em and weep, the Dead Man's Hand again,

I see it in your eyes, take one look and die,  
The only thing you see, you know it's gonna be,  
The Ace Of Spades

Uncle Kracker has based an entire song on the hand, entitled Aces and Eights, where in the refrain, he repeats the lines:

Aces and eights, aces and eights, aces and eights  
That's a dead man's hand

In Nelson DeMille's novel *The Charm School*, the school in question is a Soviet prison camp for American military personnel missing in action forced to serve as role models for future spies, who live with them in a complete simulation of American everyday culture. The prisoners have secretly agreed among themselves on false customs they will teach in order to sabotage their students' future missions, and DeMille reveals this fact to the reader by describing a poker game where a two-pair hand has just been declared, and a prisoner misleads a student by inappropriately describing it as the dead man's hand.

## Adapting to 7-card games

In five-card games, this category of hands can be succinctly defined as two aces, two eights, and one card of any remaining rank, regardless of suit. In seven-card games, a strict specification of aces and eights is more complicated: in permitting the existence of two pairs, a five-card hand as described also rules out any higher value. Among seven-card hands, as a contrasting example, any with two aces, two eights, and three cards with one other rank in common always provides both two pair and a full house, so a competent player would always set aside the eights and declare the full house; most players would probably thus not consider it a dead man's hand, any more than they would so consider a full house with aces and eights.

Categories: Poker hands

## Dominating hand

In poker, a *dominating* hand is one with an overwhelming statistical advantage over another specific hand. For example, in Seven-card stud, while a Starting hand of  $K^* Ke Qf$  has the lead over  $Af Kf 10e$ , the latter has many outs (ways to improve) to beat the former (catching an ace, the straight, the flush, etc.), making it a roughly even contest. However, the first hand dominates in a contest with a hand like  $Qe Q^* Jc$ , because this hand has no ways to improve that the first one doesn't also have (two pair, trips, straight), and the first hand has some of the second hand's outs as well (unseen cards include two kings, but only one queen), giving it a significant advantage.

This concept is most important in no limit play, where it is possible to bet all your money early in the hand. One must judge not only whether your opponent's hand might be better than yours, but whether or not it might dominate yours to such a degree that long-run

fluctuations of luck will amplify the consequences of a mistaken play rather than mitigating them.

One of the things that makes no limit Texas hold 'em strategically rich and interesting is the unusual relationship of advantage and dominance among various Starting hands. For example, the hand *Ac Kf* is a slight favorite over *J` 10`*; this hand is a slight favorite over *4` 4c*; and in a non-transitive relationship, the fours are a small favorite over *Ac Kf*. None of these hands dominates any other, but *Ac Kf* does dominate *Ae Qf*, *4` 4c* is dominated by *7` 7e*, and *J` 10`* is dominated by *Qc Jc*.

Categories: Poker hands

## Drawing hand

In Poker, a *drawing hand* is a hand that is not yet "complete"; that is, one which does not yet rank highly, but which may later, depending on what cards a player receives. This contrasts with a made hand - a hand which is already somewhat strong.

An illustrative example from Texas Hold 'em: if Alice holds *Ac Kc*, Bob holds *6f 7f*, and the flop comes *5` 8` Ke*, then Alice has a fairly strong "made hand" (a pair of Kings, with an Ace kicker), while Bob has a drawing hand: an open-ended straight draw. If allowed to see the final two community cards, Bob can expect to catch a 4 or a 9 (thus completing his straight and winning) about a third of the time.

Whether to continue with a drawing hand is usually a function of pot odds. Typically, if a player with a strong "made hand" suspects another player of being "on a draw", the player with the made hand will make a strong bet, so that it is mathematically incorrect for the other player to "chase".

### See also

- Draw (poker)
- Pot odds
- Poker probability
- Poker probability (Texas hold 'em)

Categories: Poker hands

## Made hand

In poker, a *made hand* is one that does not need improvement to win, in contrast to a drawing hand. For example in Draw poker, if you have two pair, and your opponent is drawing for a straight or flush, you are said to have a made hand because even though you

will be drawing a card just as he will, you can win even if you don't draw a card that improves your hand, while he cannot win unless he improves

Categories: Poker hands

## Non-standard poker hand

*Non-standard poker hands* are hands which are not recognized by official poker rules but are created by house rules. Non-standard hands usually appear in games using wild cards or bugs. Other terms for nonstandard hands are *special hands* or *freak hands*. Because the hands are defined by house rules, the composition and ranking of these hands is subject to variation. Any player participating in a game with non-standard hands should be sure to determine the exact rules of the game before play begins.

The usual hierarchy of poker hands from highest to lowest runs as follows (standard poker hands are in italics):

- *Five of a kind*: Five cards of the same rank, only possible using one or more wild cards.
- *Skeet flush*: The same cards as a skeet and all in the same suit.
- **Straight flush**: The highest straight flush, A-K-Q-J-10 suited, is also called a royal flush.
- **Four of a kind**: Between two equal sets of four of a kind (possible in wild card and community card poker games), the kicker determines the winner.
- *Big bobtail*: A four card straight flush (four cards of the same suit in consecutive order).
- Full house
- **Flush**: When wild cards are used, a wild card contained in a flush is considered to be of the highest rank not already present in the hand. For example, in the hand (Wild) 10e 8e 5e 4e, the wild card plays as the Ae, but in the hand Ac Kc (Wild) 9c 6c, it plays as the Qc. A variation is the double-ace flush rule, in which a wild card in a flush always plays as an ace, even if one is already present. In such a game, the hand A` (Wild) 9` 5` 2` would defeat Af Kf Qf 10f 8f (the wild card playing as an imaginary second A`), whereas by the standard rules it would lose (because even with the wild card playing as a K`, the latter hand's Qf outranks the former's 9`).
- *Big cat*: See cats and dogs below.
- *Little cat*: See cats and dogs below.
- *Big dog*: See cats and dogs below.
- *Little dog*: See cats and dogs below.
- **Straight**: When wild cards are used, the wild card becomes whichever rank is necessary to complete the straight. If two different ranks would complete a straight, it becomes the higher. For example, in the hand Jf 10` 9c (Wild) 7`, the wild card plays as an 8 (of any suit; it doesn't matter). In the hand (Wild) 6e 5f 4e 3f, it plays as a 7 (even though a 2 would also make a straight).

- **Wheel:** The sequence 5-4-3-2-A. This could technically be considered a round-the-corner straight, but is frequently played even if other round-the-corner straights are not allowed, particularly in pai gow poker. When wheels are recognized as distinct from round-the-corner straights, they are ranked as straights: in most games they are considered five-high, and thus the lowest possible straights, but in pai gow poker they rank between king-high and ace-high straights.

- *Wrap-around straight:* Also called *round-the-corner straight*. Consecutive cards including an ace which counts as both the high and low card. (Example Q-K-A-2-3).

- *Skip straight:* Also called *alternate straight*, *Dutch straight*, or *skipper*. Cards are in consecutive order, skipping every other card. (Example 3-5-7-9-J).

- *Five and dime:* All cards are fives, sixes, sevens, eights, nines, or tens with no pair.

- *Skeet:* Also called *pelter* or *bracket*. A hand with a deuce; a three or a four; a five; a six, a seven, or an eight; and a nine.

- Three of a kind

- *Little bobtail:* A three card straight flush (three cards of the same suit in consecutive order).

- *Flash:* One card of each suit plus a joker.

- *Blaze:* Also called *blazer*. All cards are jacks, queens, or kings.

- Two pair

- *Russ:* Five cards of the same color.

- *Bobtail flush:* Also called *four flush*. Four cards of the same suit.

- *Flush house:* Three cards of one suit and two cards of another.

- *Bobtail straight:* Also called *four straight*. Four cards in consecutive order.

- One pair

- High card

Some poker games are played with a deck that has been stripped of certain cards, usually low-ranking ones. For example, the Australian game of Manila uses a 32-card deck in which all cards below the rank of 7 are removed, and Mexican stud removes the 8s, 9s, and 10s. In both of these games, a flush ranks above a full house, because having fewer cards of each suit available makes full houses more common.

## Cats and dogs

"Cats" (or "tigers") and "dogs" are types of no-pair hands defined by their highest and lowest cards. The remaining three cards are kickers. Dogs and cats rank above straights and below flushes. Usually, when cats and dogs are played, they are the only unconventional hands allowed.

- *Little dog*: Seven high, two low (for example, 7-6-4-3-2). It ranks just above a straight, and below a flush or any other cat or dog.
- *Big dog*: Ace high, nine low (for example, A-K-J-10-9). Ranks above a straight or little dog, and below a flush or cat.
- *Little cat* (or *little tiger*): Eight high, three low. Ranks above a straight or any dog, but below a flush or big cat.
- *Big cat* (or *big tiger*): King high, eight low. It ranks just below a flush, and above a straight or any other cat or dog.

Some play that dog or cat flushes beat a straight flush, under the reasoning that a plain dog or cat beats a plain straight. This makes the big cat flush the highest hand in the game.

## Kilters

A *Kilter*, also called *Kelter*, is a generic term for a number of different non-standard hands. Depending on house rules, a Kilter may be a Skeet, a Little Cat, a Skip Straight, or some variation of one of these hands.

## See also

- Rank of hands (poker)
- Wild card (poker)
- Bug (poker)

**Categories:** Poker hands | Poker variants

## Nut hand

In poker, the *nut hand*, or just the *nuts*, is the strongest hand possible in any particular situation. The term applies mostly to community card poker games to mean the individual holding that makes the strongest hand possible with the given board of community cards. By extension, the term is used more loosely to refer to any very strong hand.

For example in Texas hold 'em, if the board is 5` 6` Ac 9` 5e, a player holding 7` 8` has the nuts (a 9-high straight flush in spades), and cannot lose. Sometimes it is useful to know that your hand is the second or third best possible. On this same board, the hand 5c 5f would be

the second-nut hand, four fives; and the third-nut hand would be any pair of the remaining three aces, making a full house A-A-A-5-5.

In high-low split games one often speaks of "nut low" and "nut high" hands separately. With an Omaha board identical to the one above, any hand with 2-3 makes the nut low 6-5-3-2-A, while 2-4 is the second-nut low (the nut high hands remain the same).

Finally, one also hears terms such as "nut flush" or "nut full house" to mean the highest hand possible in that particular category in the circumstances, even though that may not be strictly the nut hand. For example, a pair of aces with the above board could be called the "nut full house", even though there are two higher (but very unlikely) hands possible.

The phrase originates from the historical poker games in the colonial west of America. If one bet to the sum of everything he possessed, he would place the "nuts" of his wagon wheels on the table. Most likely, this was to ensure that, should the wagerer lose the hand, he would be unable to flee and would have to make good on the bet. Obviously, to make such a bet one would need to be sure that he has the best possible hand.

There is also a possibility of having a nut losing hand (a hand that will lose to anything). For example, this occurs when the board has four of a kind and a deuce. In this situation, if you hold pocket 2's, there is no possibility of this hand winning a showdown with any other hand, as any opponent must have a better kicker than you.

Categories: Poker hands

## Pocket Aces

*Pocket Aces* refers to a starting poker hand that contains two Aces. The most common context is a game of Texas Hold'em.

Other names for Ace-Ace include American Airlines, bullets, and rockets.

In a conventional game of hold'em, Ace-Ace is the best possible starting hand. It is the best hand before the flop, is the hand most likely to form the best hand after the flop, and in the long run shows the most earning potential of any starting hand. The second-best starting hand is King-King.

It is also possible to have pocket aces in a game of seven-card stud, if the two hole cards are aces.

The odds against being dealt pocket aces are 220:1.

Categories: Poker hands

## Starting hand

In poker, the *starting hand* is the initial set of cards dealt to each player before any voluntary betting takes place. For example, in Seven-card stud this is two downcards and one upcard; in Texas hold'em it is two downcards; in Five-card draw it is five cards.

The one decision made by every poker player on every deal of every game is whether to continue playing that hand after seeing that first set of cards. Since making this decision correctly will lead to the most long-run profit for a skilled player, players often put considerable study into what the appropriate starting hand "standards" are for the game being played.

Optimal starting hand standards can be very sensitive to factors such as the betting structure of a game, position, and the character of the other players, as well as the rules of the game being played.

## See also

- [Poker](#)
- [Dominating hand](#)
- [Poker strategy](#)

Categories: [Poker hands](#)

## Poker jargon

The large and growing *jargon of poker* includes many terms. This page contains brief definitions of the most common terms you may encounter in text or at play. The list has been trimmed to primarily those poker-specific terms one might find in poker texts or in common use in casinos. Some terms link to a more complete article on the topic.

Various poker hands have been given many names, and these are listed in [List of slang names for poker hands](#). Finally, this is not meant to be a formal dictionary; precise usage details and multiple closely related senses are omitted here in favor of concise treatment of the basics.

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## A

[A-B-C](#), [A-B-C-D](#)

1. A sequence of the lowest cards in a lowball game. For example, the hand 8-6-3-2-A might be called an eight-six-a-b-c.

2. Uncreative or predictable play. He's an a-b-c player.

[ace-to-five](#), [ace-to-six](#)

Methods of evaluating low hands. See [ace-to-five low](#), [ace-to-six low](#).

[act](#)



To make a play (bet, call, raise, or fold) at the required time. It is Ted's turn to act. Compare to "in turn".

#### action

1. A player's turn to act. The action is on you.
2. A willingness to gamble. I'll give you action or There's plenty of action in this game

3. A bet, along with all the calls of that bet. For example, if one player makes a \$5 bet and three other players call, he is said to have \$5 "in action", and to have received \$15 worth of action on his bet. Usually this term comes into play when figuring side pots when one or more players is all in.

#### action button

A marker similar to a kill button, on which a player places an extra forced bet. In a seven-card stud high-low game, the action button is awarded to the winner of a scoop pot above a certain size, signifying that in the next pot, they player will be required to post an amount representing a completion of the bring-in to a full bet. For example, in a stud game with \$2 and \$4 betting limits and a \$1 bring-in, a player with the action button must post \$2; after the cards are dealt, the player with the low card must still pay the \$1 bring-in, then when the betting reaches the player who posted the \$2, he is required to leave it in as a raise of the bring-in (and has the option to raise further). Players in between the bring-in and the action button can just call the bring-in, but they know ahead of time that they will be raised by the action button.

#### action only

In many cardrooms, with respect to an all-in bet, only a full (or half) bet can be reraised. Anything less than a full (or half) bet is considered to be action only, that is, other players can call the bet but not raise it. For example, Alice bets \$100. Bob calls. Carol goes all in for \$119. When the action returns to Alice and Bob, they may only to call the extra \$19; they cannot raise it. Carol's raise is called action only. Compare to "full bet rule", "half bet rule".

#### add-on

In a live game, to buy more chips before you have busted. In tournament play, a single rebuy for which all players are eligible regardless of their stack size. This is usually allowed only once, at the end of the rebuy period.

#### advertising

To make an obvious play or expose cards in such a way as to deliberately convey an impression to your opponents about your style of play. For example, to make a bad play or bluff to give the impression that you bluff frequently (hoping opponents will then call your legitimate bets) or to show only good hands to give the impression that you rarely bluff (hoping opponents will then fold when you do).

aggressive or aggression

**See aggression (poker). Compare to "loose", "tight", "passive".**

air

In a lowball game, "giving air" is letting an opponent who might otherwise fold know that you intend to draw one or more cards to induce him to call.

all day

The total current posted bet. Used to indicate that the speaker is referring to the total bet, versus the difference the acting player would need to post. Action is on Alice; twenty all day. Also "altogether" or "straight".

all in

See all in.

altogether

The total current posted bet. Used to indicate that the speaker is referring to the total bet, versus the difference the acting player would need to post. Action is on Alice; twenty dollars altogether. Also "all day" or "straight".

ammo, ammunition

*Chips in play. I'm going to need more ammo for this game. Compare to "fire".*

angle

A technically legal, but borderline unethical, play. For example, deliberately miscalling one's own hand to induce a fold, or placing odd amounts of chips in the pot to confuse opponents about whether you mean to call or raise. A player employing such tactics is called an "angle shooter".

ante

See ante.

ante off

In tournament play, to force an absent player to continue paying antes, blinds, bring-ins, or other forced bets so that the contest remains fair to the other players. Go ahead and take that phone call. We'll ante you off until you get back. Also "blind off".

## **B**

baby

A low-ranked card, usually used in lowball games. Also "spoke" when between ace and five.

backdoor

1. A draw requiring two or more rounds to fill. For example, catching two consecutive cards in two rounds of seven-card stud or Texas hold 'em to fill a straight or flush.

2. A hand made other than the hand the player intended to make. I started with four hearts hoping for a flush, but I backdoored two more kings and my trips won.

back in

1. To enter a pot by checking and then calling someone else's open on the first betting round. Usually used in games like Jackpots, meaning to enter without openers.

2. To enter a pot cheaply or for free because of having posted a blind.

back into

To win a pot with a hand that would have folded to any bet. For example, two players enter a pot of draw poker, both drawing to flushes. Both miss, and check after the draw. The player with the ace-high draw "backs into" winning the pot against the player with only a king-high draw. Also to make a backdoor draw, for example, a player who starts a hand with three of a kind, but makes a runner-runner flush, can be said to back into the flush.

bad beat

***See bad beat.***

bank

Also called the house, the person responsible for distributing chips, keeping track of the buy-ins, and paying winners at the end of the game.

bankroll

The amount of money that a player has to wager for the duration of his or her poker career.

behind

1. Not currently having the best hand. I'm pretty sure my pair of jacks was behind

Lou's kings, but I had other draws, so I kept playing.

2. Describing money in play but not visible as chips in front a player. For example, a player may announce "I've got \$100 behind" while handing money to a casino employee, meaning that he intends those chips to be in play as soon as they are brought to him.

belly buster

***An inside straight draw. Also "gutshot".***

berry patch

A game with many unskilled or "live" players; a lucrative opportunity for profit.

bet

1. Any money wagered during the play of a hand.
2. More specifically, the opening bet of a betting round.

3. In a **fixed limit** game, the standard betting amount. There were six bets in the pot when I called.

betting structure

*See betting (poker).*

big bet

*See big bet.*

big bet game

A game played with a no limit or pot limit betting structure.

big blind

*See blind (poker).*

big blind special

A situation in which (assuming no raising) the player in the big blind is dealt weak hole cards, but ends up making the best hand because he or she was able to see the flop for free, often two pair with unusual cards such as 3-9 or 10-2. Compare to "small blind special".

blank

*A card, frequently a **community card**, of no apparent value. I suspected Margaret had a good draw, but the river card was a blank, so I bet again. Also "**rag**". Compare to "**brick**", "**bomb**".*

blaze

A hand of five face cards that used to outrank a flush.

bleed

*To lose small amounts continually, so as to add up to a large loss. I won that large pot with my kings, but then I bled it all off over the next hour.*

blind

1. A type of forced bet. See blind (poker).
2. In the "dark".

blind stud

A stud poker game in which all cards are dealt face down. Was popular in California before legal rulings made traditional stud legal there.

blind off, blinded

1. **To** "ante off".
2. To have one's stack reduced by paying ever increasing blinds in tournaments. Ted had to make a move soon or he would be blinded away in three more rounds.

bluff

*See bluff (poker).*

bluff-catcher

*On the last betting round, a hand that cannot win if the opponent is making a legitimate **value** bet, but that might win if the opponent's bet was a pure bluff. It looked like Jim and I were both drawing for a flush. I missed and he bet, but I figured the pair of nines I caught along the way made a bluff-catcher, so I called.*

board

1. The set of **community cards** in a **community card game**. If another spade hits the board, I'll have to fold.
2. The set of face-up cards of a particular player in a stud game. Zack's board didn't look too scary, so I bet into him again.
3. The set of all face-up cards in a stud game. I started with a flush draw, but there were already four other diamonds showing on the board, so I folded.

bomb

A "brick". Compare to "blank", "rags".

bone

A chip, often of small denomination.

both ways

Both halves of a split pot, often declared by a player who thinks he or she will win both low and high.

bottom end

The lowest of several possible straights, especially in a community card game. For example, in Texas hold'em with the cards 5-6-7 on the board, a player holding 3-4 has the bottom end straight, while a player holding 4-8 or 8-9 has a higher straight. Also "idiot end".

bottom pair, bottom set

In a community card game, a pair (or set) made by matching the lowest-ranking board card with one (or two) in one's private hand.

### box

The chip tray in front of a house dealer, and by extension, the house dealer's position at the table. You've been in the box for an hour now; don't you get a break?

### boxed card

A card encountered face-up in the assembled deck during the deal, as opposed to one overturned in the act of dealing. Most house rules treat a boxed card as if it didn't exist; that is, it is placed aside and not used. Different rules cover cards exposed during the deal.

### break

1. In a draw poker game, to discard cards that make a made hand in the hope of making a much better one. For example, a player with J-J-10-9-8 may wish to break his pair of jacks to draw for the straight, and a lowball player may break his 9-high 9-5-4-2-A to draw for the wheel.
2. To end a session of play. The game broke at about 3:00.

### brick

A "blank", though more often used in the derogatory sense of a card that is undesirable rather than merely inconsequential, such as a card of high rank or one that makes a pair in a low-hand game. Also "bomb". Compare to "rags".

### bring in

1. To **open** a betting round. Alice brought it in for \$5, and Bob raised \$10.
2. A kind of forced bet. Ted posted the bring-in.

### brush

1. A casino employee whose job it is to greet players entering the poker room, maintain the list of persons waiting to play, announce open seats, and various other duties (including brushing off tables to prepare them for new games, hence the name).
2. To recruit players into a game. Dave is brushing up some players for tonight's game.

### bubble

The last finishing position in a poker tournament before entering the payout structure. He was very frustrated after getting eliminated on the bubble. Also can be applied to other situations like if six players will make a televised final table the player finishing seventh will go out on the "TV bubble".

### buck

*See button (poker).*

bug

*See bug (poker). Compare to wild card (poker).*

bullet

1. An ace.
2. A chip. Also "ammo".

bully

To bluff repeatedly at all opportunities, or a player who does so. Compare to "run over".

bum deal

A mis-deal

bump

To **raise**. Alice bet \$5 and Bob bumped it to \$20.

burn, burn card

*See burn card.*

busted

1. Not complete, such as four cards to a straight that never gets the fifth card to complete it.
2. Out of chips. To "bust out" is to lose all of one's chips.

button

See button (poker). Also "buck".

buy-in

The minimum required amount of chips to become involved in a game (or tournament). For example, a \$4-\$8 fixed limit game might require a player to buy at least \$40 worth of chips to play. This is typically far less than an average player would expect to play with for any amount of time, but large enough that the player can play a number of hands without buying more, so the game isn't slowed down by constant chip-buying.

buy short

To buy into a game for an amount smaller than the normal buy-in. Some casinos allow this under certain circumstances, such as after having lost a full buy-in, or if all players agree to allow it.

buy the button

A rule originating in northern California casinos in games played with blinds, in which a new player sitting down with the button to his right (who would normally be required to sit out a hand as the button passed him, then post to come in) may choose to pay the amount of both blinds for this one hand (the amount of the large blind playing as a live blind, and the amount of the small blind as dead money), play this hand, and then receive the button on the next hand as if he had been playing all along. See public cardroom rules (poker).

buy the pot

Making a bet when no one else is betting so as to force the other players to fold in order to win the pot uncontested.

## C

call

See call.

calling station

A weak player who frequently checks and calls, but rarely raises.

cap

A limit on the number of raises allowed in a betting round. Typically three or four (in addition the opening bet). In most casinos, the cap is removed if there are only two players remaining either (1) at the beginning of the betting round, or (2) at the time that what would have otherwise been the last raise is made.

Also, term for the chip, token, or object placed atop one's cards to show continued involvement with a hand.

cards speak

*See cards speak (poker).*

case card

The last available card of a certain description (typically a rank). The only way I can win is to catch the case king, meaning the only king remaining in the deck.

cash plays

An announcement, usually by a dealer, that a player requested to buy chips and can bet the cash he has on the table in lieu of chips until he receives his chips.

catch

To receive needed cards on a draw. I'm down 300--I can't catch anything today. or Joe caught his flush early, but I caught the boat on seventh street to beat him. Often used with an adjective to further specify, for example "catch perfect", "catch inside", "catch smooth".

catch up

To successfully complete a draw, thus defeating a player who previously had a better hand. I was sure I had Alice beat, but she caught up when that spade fell.



catch perfect

To catch the only two possible cards that will complete a hand and win the pot, usually those leading to a straight flush. Usually used in Texas Hold 'Em. Compare with "runner-runner".

center pot

The main pot in a table stakes game where one or more players are all in.

chase

1. To call a bet to see the next card when holding a drawing hand when the pot odds do not merit it.
2. To continue to play a **drawing** hand over multiple betting rounds, especially one unlikely to succeed. Bob knew I made three nines on fourth street, but he chased that flush draw all the way to the river.
3. To continue playing with a hand that is not likely the best because one has already invested money in the pot.

check

1. To bet nothing. See check.
2. A casino chip.

check out

To fold, in turn, even though there is no bet facing the player. In some games this is considered a breach of etiquette equivalent to folding out of turn. In others it is permitted, but frowned upon.

check-raise

*See check-raise.*

cheese

*A poor hand. Throw that piece of cheese in the muck and move on to the next hand.*

chip

*See poker chip.*

chip along

To bet or call the minimum required to stay in, often done with little or no thought.

chip declare

A method of declaring intent to play high or low in a split-pot game with declaration. See declaration.

chip dumping

A form of collusion that happens during tournaments, especially in the early rounds. Two or more players decide to go all-in early. The winner gets a large amount of chips, which increases the player's chance of cashing. The winnings are then split among the colluders.

chip race

**See** *chip race*.

chip up

To exchange lower-denomination chips for higher-denomination chips. In tournament play, the term means to remove all the small chips from play by rounding up any odd small chips to the nearest large denomination, rather than using a chip race.

chop

1. To split a pot because of a tie, split-pot game, or player agreement.
2. To play a game for a short time and cash out. Also "hit and run".
3. A request made by a player to a dealer after taking a large-denomination chip that he wishes the dealer to make change.
4. To chop blinds.

chopping the blinds

**See** *chopping the blinds*.

closed

**See** *closed (poker)*.

coffeehouse

To make annoying smalltalk during a game, to make comments about a hand in progress, or to make deceptive comments about one's own play.

cold

1. Consecutive. I caught three cold spades for the flush.
2. Unlucky. I've been cold all week.

cold call

To call an amount that represents a sum of bets or raises by more than one player. Alice opened for \$10, Bob raised another \$20, and Carol cold called the \$30. Compare to "smooth call", "flat call", "overcall".

cold deck

A deck previously arranged to produce a specific outcome, then surreptitiously switched into the game. Called "cold" because such a deck switched in during play will not have been warmed by the dealer's hands. I can't believe David got those four kings the same time I got four sixes--it was like being cold-decked. Also "ice".

collusion

A form of cheating involving cooperation among two or more players. See cheating in poker.

color change, color up

To exchange small-denomination chips for larger ones.

combo, combination game

A casino table at which multiple forms of poker are played in rotation.

come bet, on the come

A bet or raise made with a drawing hand, building the pot in anticipation of filling the draw. Usually a weak "gambler's" play, but occasionally correct with a very good draw and large pot or as a semi-bluff.

community card

***See community card poker.***

completion

To raise a small bet up to the amount of what would be a normal-sized bet. For example, in a \$2/\$4 stud game with \$1 bring-in, a player after the bring-in may raise it to \$2, completing what would otherwise be a sub-minimum bet up to the normal minimum. Also in limit games, if one player raises all in for less than the normally required minimum, a later player might complete the raise to the normal minimum (depending on house rules). See table stakes.

connectors

Two or more cards of consecutive rank.

continuation bet

A bet made after the flop by the player who took the lead in betting before the flop (Hold 'em and Omaha). Compare to "probe bet".

countdown

1. Especially in lowball, two hands very nearly tied that must be compared in detail to determine a winner, for example, 8-6-5-3-2 versus 8-6-5-3-A.
2. The act of counting the cards that remain in the stub after all cards have been dealt, done by a dealer to ensure that a complete deck is being used.

counterfeit

***See counterfeit (poker). Also "duplicate".***

cow

A player with whom one is sharing a buy-in, with the intent to split the result after play. To "go cow" is to make such an arrangement.

crack

To beat a better hand, mostly heard in reference to the best Hold em hole cards, AA. eg "My aces were cracked again"

crossfire

When a player is caught in the middle between two raisers and is induced to call each bet because of the pot odds. Compare to "whipsaw".

crying call

A call made reluctantly on the last betting round with the expectation of losing (but with some remote hope of catching a bluff).

cut

See cut.

cutoff

The seat immediately to the right of the dealer button. Also "pone".

## D

dark

Describing an action taken before receiving information to which the player would normally be entitled. I'm drawing three, and I check in the dark. Compare to "blind".

dead blind

A blind that is not "live", in that the player posting it does not have the option to raise if other players just call. Usually refers to a small blind posted by a player entering, or returning to, a game (in a position other than the big blind) that is posted in addition to a live blind equal to the big blind.

dead button

*See dead button rule.*

dead hand

A player's hand that is not entitled to participate in the deal for some reason, such as having been fouled by touching another player's cards, being found to contain the wrong number of cards, being dealt to a player who did not make the appropriate forced bets, etc.

dead money

*See dead money (poker).*

deadwood

The muck.

deal

1. To distribute cards to players in accordance with the rules of the game being played.
2. A single instance of a game of poker, begun by shuffling the cards and ending with the award of a pot. Also called a "hand" (though both terms are ambiguous).

3. An agreement to split tournament prize money differently from the announced payouts.

deal twice

In a cash game, when two players are involved in a large pot and one is all-in, they might agree to deal the remaining cards twice. If one player wins both times he wins the whole pot, but if both players win one hand they split the pot.

dealer

1. ***The person dealing the cards. Give Alice the cards, she's dealing.***

2. The person who assumes that role for the purposes of betting order in a game, even though someone else might be physically dealing. Also "button". Compare to "buck".

dealer's choice

A version of poker in which the deal passes each game and each dealer can choose, or invent, a new poker game each hand.

declare

To verbally indicate an action or intention. See declaration (poker).

decloak

To raise after having slow playing for a time (making it clear that you were, in fact, slow playing). See "in the bushes".

deep

Describing a large amount of money, either in play or having been lost. How deep are you? (meaning "How much money do you have", in anticipation of making a very large bet). I won that large pot, but I'm in much deeper than that.

defense

***See defense (poker).***

deuce

1. A 2-spot card.
2. Any of various related uses of the number two, such as a \$2 limit game, a \$2 chip, etc.

deuce-to-seven

A method of evaluating low hands. See Deuce-to-seven low.

discard

To take a previously dealt card out of play. The set of all discards for a deal is called the "muck" or the "deadwood".

dog

Underdog; that is, a player with a smaller chance to win than another specified player. Frequently used when the exact odds are expressed. Harry might have been bluffing, but if he really had the king, my hand was a 4-to-1 dog, so I folded.

dominated hand

A hand that is extremely unlikely to win against another specific hand, even though it may not be a poor hand in its own right. Most commonly used in Texas hold 'em. A hand like A-Q, for example, is a good hand in general but is dominated by A-K, because whenever the former makes a good hand, the latter is likely to make a better one. A hand like 7-8 is a poor hand in general, but is not dominated by A-K because it makes different kinds of hands. See Dominating hand.

donation

A call made by a player who fully expects to lose; made either out of boredom or irrational optimism.

donk, donkey

Epithet for an inexperienced, unskilled, or foolish poker player. I played that hand like a donkey. Also "fish".

donk (verb)

*To play a hand poorly. I donked off 15 bucks on that last hand.*

door card

*In a **stud** game, a player's first face-up card. Patty paired her door card on fifth street and raised, so I put her on trips.*

double-ace flush

Under unconventional rules, a flush with one or more wild cards in which they play as aces, even if an ace is already present.

double-board, double-flop

Any of several community card game variants (usually Texas hold 'em) in which two separate boards of community cards are dealt simultaneously, with the pot split between the winning hands using each board.

double-draw

Any of several Draw poker games in which the draw phase and subsequent betting round are repeated twice.

double belly buster, double gut-shot, double inside straight

**See** *double inside straight draw*.

double through, double up

In a big bet game, to bet all of one's chips on one hand against a single opponent (who has an equal or larger stack) and win, thereby doubling your stack. I was losing a bit, but then I doubled through Sarah to put me in good shape.

downcard

A card that is dealt facedown.

down to the felt

All in, or having lost all of one's money. Refers to the green felt surface of a poker table no longer obscured by chips.

drag light

To pull chips away from the pot to indicate that you don't have enough money to cover the bet. If you win, the amount is ignored. If you lose, you must cover the amount from your pocket.

draw, drawing hand

*See draw (poker).*

drawing dead

Playing a drawing hand that will lose even if successful (a state of affairs usually only discovered after the fact or in a tournament when two or more players are "all in" and they show their cards). I caught the jack to make my straight, but Rob had a full house all along, so I was drawing dead.

drawing live

Not drawing dead; that is, drawing to a hand that will win if successful.

drawing thin

Not drawing completely dead, but chasing a draw in the face of poor odds. Example: a player who will only win by catching 1 or 2 specific cards is said to be drawing thin.

drop

1. To fold.
2. Money charged by the casino for providing its services, often dropped through a slot in the table into a strong box. See "rake".
3. To drop ones cards to the felt to indicate that one is in or out of a game.

dry pot

A side pot with no money. Created when a player goes all in and is called by more than one opponent, but not raised. Bluffing into a dry pot is a play that cannot possibly earn a profit, so doing so is considered foolish. It may also be unethical, because it serves to protect the all-in player at the expense of the bettor and the other players, and so is a form of collusion.

dump, dumped

To lose a large quantity of ones stack to another player on a particular hand or set of hands in short succession. I dumped half my stack to John after he cracked my Kings.

duplicate

To counterfeit, especially when the counterfeiting card matches one already present in the one's hand.

## E

early position

*See position (poker).*

equity

One's mathematical expected value from the current deal, calculated by multiplying the amount of money in the pot by one's probability of winning. For example, if the pot currently contains \$100, and you estimate that you have a one in four chance of winning it, then your equity in the pot is \$25.

expectation, expected value, EV

See expected value. Often used in poker to mean "profitability in the long run".

exposed card

A card whose face has been deliberately or accidentally revealed to players normally not entitled to that information during the play of the game. Various games have different rules about how to handle this irregularity. Compare to "boxed card".

## F

family pot

A deal in which every (or almost every) seated player called the first opening bet.

fast

***Aggressive** play. I was afraid of too many chasers, so I played my trips fast. Compare to "speeding".*

feeder

In a casino setting, a second or third table playing the same game as a "main" table, and from which players move to the main game as players there leave. Also called a "must-move table."



fence-hopper  
Compare to "hop the fence".

fifth street

1. The last card dealt to the board in community card games. Also "river".
2. The fifth card dealt to each player in stud poker.

fill, fill up

To successfully draw to a hand that needs one card to complete it, by getting the last card of a straight, flush, or full house. Jerry made his flush when I was betting my kings up, but I filled on seventh street to catch up.

final table

In a multi-table tournament: to remain in the game long enough as to make it to the last round of players that can fit at one standard tournament table (usually 9 or 10 players).

fire

*To make the **opening** bet of a round, following the same analogy by which chips are called "ammo". I called Ken's bet on fourth with a draw, but I bricked, and when he fired again I had to fold. or I think Randy suspected my earlier bet was a bluff, but when I fired a second shot he let it go.*

fish

1. An unskilled player, or an otherwise skilled player playing carelessly. Also "donkey".
2. To risk money on a long-shot bet

five of a kind

A hand possible only in games with wild cards, defeating all other hands, comprising five cards of equal rank.

fixed limit, flat limit

**See** *fixed limits*.

flash

1. To show the bottom card of the deck while shuffling.
2. To show one or more downcards from one's hand. After everyone folded, Ted flashed his bluff to the other players.

flat call

A **call**, in a situation where one might be expected to **raise**. Normally I raise with jacks, but with three limpers ahead of me I decided to flat call. Also "**smooth call**". Compare to "**cold call**", "**overcall**". See **slow play (poker)**.

float

To call a bet with an inferior hand, with the intention of bluffing on a later betting round.

floorman, floorperson

A casino employee whose duties include adjudicating player disputes, keeping games filled and balanced, and managing dealers and other personnel. Players may shout "floor!" to call for a floorperson to resolve a dispute, to ask for a table or seat change, or to ask for some other casino service.

flop

**See flop (poker)**

flop game

**A community card game.**

flush

A hand comprising five cards of the same suit. See rank of hands (poker).

fold

See fold.

forced bet

**See forced bets.**

forced-move

In a casino where more than one table is playing the same game with the same betting structure, one of the tables may be designated the "main" table, and will be kept full by requiring a player to move from one of the feeder tables to fill any vacancies. Players will generally be informed that their table is a "forced-move" table to be used in this way before they agree to play there. Also "must-move".

forward motion

A house rule of some casinos states that if a player in turn picks up chips from his stack and moves his hand toward the pot ("forward motion with chips in hand"), this constitutes a commitment to bet (or call), and the player may not withdraw his hand to check or fold. Such a player still has the choice of whether to call or raise. Compare to "string bet".

fouled hand

A hand that is ruled unplayable because of an irregularity, such as being found with too many or too few cards, having been mixed with cards of other players or the muck, having fallen off the table, etc. Compare to "dead hand".

four-flush

Four cards of the same suit. A non-standard poker hand in some games, an incomplete drawing hand in most.

four of a kind

A hand containing four cards of equal rank. Also "quads". See rank of hands (poker).

four-straight

Four cards in rank sequence; either an open-ender or one-ender. A non-standard poker hand in some games, an incomplete drawing hand in most. Sometimes "four to a straight".

fourth street

1. The fourth card dealt to the board in community card games. Also "turn".
2. The fourth card dealt to each player in stud.

fox hunt

*See rabbit hunt.*

free card

A card dealt to one's hand (or to the board of community cards) after a betting round in which no player opened. One is thereby being given a chance to improve one's hand without having to pay anything. I wasn't sure my hand was good, but I bet so I wouldn't give a free card to Bill's flush draw.

freeroll

See freeroll (poker).

freezeout

A winner-take-all tournament. That is, a game in which play continues until one player has all the chips.

full, full boat, full hand, full house

A hand with three cards of one rank and two of a second rank. Also "boat", "tight". See rank of hands (poker).

full bet rule

In some casinos, the rule that a player must wager the full amount required in order for his action to constitute a raise. For example, in a game with a \$4 fixed limit, a player facing an opening bet of \$4 who wagers \$7 is deemed to have flat called, because \$8 is required to raise. Compare to "half bet rule". See Public cardroom rules (poker) and "All in" betting.

## G

garbage

1. The "muck".
2. A worthless hand.

going south

To sneak a portion of your chips from the table while the game is underway. Normally prohibited in public card rooms. Also "ratholing".

grinder

A player who earns a living by making small profits over a long period of consistent, conservative play. Compare to "rock".

guts, guts to open

1. A game with no opening hand requirement; that is, where the only requirement to open the betting is "guts", or courage.
2. Any of several poker variants where pots accumulate over several hands until a single player wins. See guts.

gutshot

**An** *inside straight draw*. *Ted has a gutshot draw.* **Also** *"belly buster"*.

gypsy

To enter the pot cheaply by just calling the blind rather than raising. Also "limp".

## H

half bet rule

In some casinos, the rule that placing chips equal to or greater than half the normal bet amount beyond the amount required to call constitutes a commitment to raise the normal amount. For example, in a game with a \$4 fixed limit, a player facing a \$4 opening bet who places \$6 in the pot is deemed to have raised, and must complete his bet to \$8. Compare to "full bet rule". See Public cardroom rules (poker) and "all in" betting.

hammer

1. To bet and raise aggressively. Nora kept hammering, so I folded.
2. "Having the hammer" is being in last position, especially head up. You've got the hammer; I check to you.
3. A "hammer lock" refers to a player with an almost 100% chance of winning the pot.

4. In Texas Hold'em, The Hammer refers to a starting hand consisting of a 7-2 offsuit.

hand

**See** *hand (poker)*.

hand-for-hand

**See** *hand-for-hand*.

hard

1. Aggressive and uncompromising, said of one's play. Jim played me hard all night; I could never get a break.
2. Chips, as opposed to paper money. I gave the floorman \$100 for \$50 hard and \$50 soft.

head up, heads up

*Playing against a single opponent. After Lori folded, Frank and I were heads up for the rest of the hand.*

here kitty kitty

A conspicuously small bet made with a very powerful hand in the hope of getting a call from one or more opponents who would otherwise fold to a normal-sized bet.

high, high hand

The best hand using traditional poker hand values, as opposed to lowball. Used especially in high-low split games.

high card

1. A no pair hand, ranked according to its highest-ranking cards.
2. To defeat another player by virtue of high-ranking cards, especially kickers.
3. To randomly select a player for some purpose by having each draw one card, the highest of which is selected (for example, to decide who deals first). When all the players get here, we'll high card for the button. Often high card by suit is used for this purpose.

high-low, high-low split

**See** *high-low split*.

high society

1. Large-denomination chips. Also "society".

hit and run

To play for a short time, make money, and leave. Also called "chopping" a game.

hog, hogger

To win all of the pot in a split-pot game, for example, by having both the best high hand and best low hand simultaneously. Also called "scooping" the pot.

hole, hole cards

1. Face-down cards. Also "pocket cards". I think Willy has two more queens in the hole.

2. A seat, often preceded by a number relative to the button. Sara opened from the 2-hole.

hole cam

a camera that displays a player's face-down cards ("hole cards") to television viewers. Also "pocket cam".

Hollywood

*Overt acting to deceive other players. Karl had a big smile when he bet, but it seemed too Hollywood to me, so I called anyway.*

home game

A game played at a private venue (usually the home of one of the players), as opposed to a casino or public cardroom.

hop the fence

The enter the pot with a cold call.

horse

*A player financially backed by someone else. I lost today, but Larry was my horse in the stud game, and he won big.*

H.O.R.S.E.

***See H.O.R.S.E..***

hunt

Looking further into the deck after the hand is over to see what cards would have come next. Also "fox hunt", "rabbit hunt".

# I

idiot end, ignorant end

The bottom end of a straight. Compare to "sucker straight".

immortal

Unbeatable; often said of a hand that a player knows cannot be beaten under the circumstances of play. Also "lock", "nuts".

implied odds, implied pot odds

**See** *implied pot odds*.

improve

To achieve a better hand than one currently holds by adding or exchanging cards as provided in the rules of the game being played. I didn't think Paula was bluffing, so I decided not to call unless I improved on the draw.

inside straight

**See** *inside straight draw*. **Also** "belly buster", "gutshot". **Compare to** *outside straight draw*.

insurance

A "business" deal in which players agree to split or reduce a pot (roughly in proportion to the chances of each of them winning) with more cards to come rather than playing out the hand, or else a deal where one player makes a side bet against himself with a third party to hedge against a large loss.

in the bushes, in the weeds

A player slow playing is said to be "in the bushes" during the time he is quietly checking and calling while others bet aggressively. He will eventually "decloak".

in the middle

1. In a game with multiple blinds, an incoming player may sometimes be allowed to post the blinds "in the middle" (that is, out of their normal order) rather than having to wait for them to pass.
2. A player being whipsawed is said to be "in the middle".

in the money

To place high enough in a poker tournament to get prize money.

in turn

A player, or an action, is said to be in turn if that player is expected to act next under the rules. Jerry said "check" while he was in turn, so he's not allowed to raise.

irregular declaration

An action taken by a player in turn that is not a straightforward declaration of intent, but that is reasonably interpreted as an action by other players, such as pointing a thumb up to signify "raise". House rules or dealer discretion may determine when such actions are meaningful and/or binding.

irregularity

Any of a number of abnormal conditions in play, such as unexpectedly exposed cards, that may call for corrective action. See Public cardroom rules (poker).

isolation

*See isolation (poker).*

ITM

Abbreviation of in the money.

## J

jack it up

*To raise.*

jackpot

1. A game of "jackpot poker" or "jackpots", which is a variant of five-card draw with an ante from each player, no blinds, and an opening requirement of a pair of jacks or better.
2. A large pool of money collected by the house and awarded for some rare occurrence, typically a bad beat.

jam

To open or raise the maximum amount allowed.

juice

Money collected by the house. Also "vig", "vigorish". See Rake (poker).

## K

keep (a bettor) honest



To call a final bet while not expecting to win, for the primary purpose of discouraging future bluffs.

kicker

**See** *kicker (poker)*.

kill game, kill pot

**See** *kill game*.

kitty

A pool of money built by collecting small amounts from certain pots, often used to buy refreshments, cards, and so on. The home-game equivalent of a rake.

## L

laydown

A tough choice to fold a good hand in anticipation of superior opposition.

limit

The minimum or maximum amount of a bet.

limp, limp in

To enter a pot by simply calling instead of raising.

live

1. Still raisable. A live bet is one which a player can raise even if they've already bet and everyone else has made a call, typically because the player posted a blind or straddle.

2. A game full of unskilled or bad players.

lock up

To "lock up" a seat in a cash game means to place a poker chip, player's card, or other personal effect on the table in front of the seat, to signify that the seat is occupied even though the player may not be present.

loose

**See** *loose/tight play. Compare to "tight", "aggressive", "passive"*.

loose cannon

A player who is not afraid to put money in the pot; one who is "gambling" a lot and liable to lose all his money at any given time.

low

1. The lowest card by rank.
2. The low half of the pot in a high-low split.

## M

### M-ratio

In no-limit or pot limit games the ratio of stack to the blinds and/or antes. For example 8-way in a no limit game hold'em game with blinds of \$50/\$100 and an ante of \$10 a stack of \$23,000 has an M-ratio of 100. To further clarify,  $M = \$23,000 / [\$100 + \$50 + (\$10 * 8)] = 100$ .

### made hand

See made hand. Compare to a drawing hand.

### maniac

A loose and aggressive player. A player who bets constantly and plays many inferior hands.

### match the pot

To put in an amount equal to all the chips in the pot.

### misdeal

A deal which is ruined for some reason and must be redealt.

### move in

In a no-limit game, to "move in" or to "go all in" means to bet one's entire stake on the hand in play. See table stakes.

### muck

1. To fold.
2. To discard one's hand without revealing the cards. Often done after winning without a showdown or at a showdown when a better hand has already been revealed.
3. The discard pile.

## N

### natural card

A card that isn't wild or otherwise modified by the game rules. In some houses, a natural hand beats an equivalent hand that uses wild cards, though this is not generally the case.

### no-limit

**See** *no-limit*.

### nuts, the

**See** *nut hand*.

## 0

offsuit

*Cards that are not of the same suit. The ace of clubs and the king of spades are called ace-king offsuit*

one-eyed royals

See one-eyed royals.

open

To bet first. See open.

open ended, open ended straight draw

An outside straight draw. Also "two-way straight draw".

openers

The cards held by a player in a game of "jackpots" entitling him to open the pot. "Splitting openers" refers to holding onto one of your openers after discarding it to prove you had the necessary cards to open should you win the pot.

option

1. An optional bet or draw, such as getting an extra card facedown for 50 cents or raising on the big blind when checked all the way around.
2. The right to raise possessed by the big blind if there have been no raises.

out of pocket

A game which gives the players the ability to add more money to their stack in the middle of a hand. See Table stakes.

outs

**See out (poker).**

outside straight, outside straight draw

See outside straight draw. Also "two-way straight draw".

overcall

To call a bet after others have called, esp. big bets. Jim bet, Alice called, then Ted overcalled. Compare to "cold call", "flat call", "smooth call".

overcard

1. A community card with a higher rank than a player's pocket pair.
2. A higher card. Ted held two overcards to Jill's pair with two cards to come.

overpair

In community card games such as Texas Hold'em and Omaha, a pocket pair with a higher rank than any community card.

over the top

*To **reraise**. Ted raised \$20, then Alice came over the top for \$60 more.*

## P

paint

The face cards, Jacks, Queens, and Kings, in a deck. In Texas hold'em, a flop can be said to be "all paint" if it consists of only these cards.

pair

***See** one pair*

passive

A style of play characterized by checking and calling. Compare to "aggressive", "loose", "tight".

pat

Already complete. A hand is a pat hand when, say, a straight comes on the first five cards in Texas hold'em.

pick-up

When the house picks up cash from the dealer after a player buys chips.

pigeon

A bad player. Also "donkey", "fish".

play twice

See "deal twice".

pocket pair

In community card poker or stud poker, when two of a player's private cards make a pair. Also "wired pair".

poker face

A blank face that does not reveal anything about the cards being held. Often used metaphorically outside the world of poker.

position

*See position (poker).*

position bet

A bet that is made more due to the strength of the bettor's position than the strength of the bettor's cards.

post

To make the required small or big blind bet in Texas Hold 'em or other games played with blinds rather than antes

post dead

To post a bet amount equal to the small and the big blind combined (the amount of the large blind playing as a live blind, and the amount of the small blind as dead money). In games played with blinds, a player who steps away from the table and misses his turn for the blinds must either post dead or wait for the big blind to re-enter the game. Compare to "dead blind".

post oak bluff

*See post oak bluff.*

pot

*See pot (poker).*

pot limit

*See pot limit.*

pot odds

*See pot odds.*

probe bet

A bet after the flop by a player who did not take the lead in betting before the flop (and when the player that did take the lead in betting before the flop declined to act). Compare to "continuation bet".

proposition player, prop

A player that gets paid an hourly rate to start poker games or to help them stay active. Prop players play with their own money, which distinguishes them from shills, who play with the casino's money.

protect, protection

*See protection (poker).*

push

To put yourself all-in.

## Q

quads

*Four of a kind.*

quarter

To win a quarter of a pot, usually by tying the low or high hand of a high-low split game. Generally, this is an unwanted outcome, as it seldom wins enough money to cover the amount bet during the hand.

## R

rabbit hunt

After a hand is over, a rabbit hunt means to reveal the last card that would have come up in a community card game with a fixed number of cards. Such activity is usually prohibited in casinos.

rack

1. A collection of 100 chips of the same denomination, usually arranged in 5 stacks in a plastic tray.
2. A plastic tray used for storing a rack of chips.

rags

Worthless (or apparently worthless) cards. Most often refers to small cards in high-hand games, while high cards in low games are more often called "bricks" or "bombs". Also "blank".

rail

The rail is the sideline at a poker table - the (often imaginary) rail separating spectators from the field of play. Watching from the rail means watching a poker game as a spectator. People on the rail are sometimes called railbirds.

rainbow

Three or four cards of different suits, especially said of a flop.

raise

See raise.

rake

**See rake (poker).** *Also "juice", "vig", "vigorish".*

rakeback

Rebate/repayment to a player of a portion the rake paid by the player, normally from a non-cardroom, third-party source such as an affiliate. Applies only to online poker.

ram and jam

To aggressively bet, raise, and reraise.

ratholing

**To "go south".**

rebuy

An amount of chips purchased after the buy-in.

redeal

To deal a hand again, possibly after a misdeal.

redraw

1. To make one hand and have a draw for a better hand. Ted made a straight on the turn with a redraw for a flush on the river..

2. Second or later draws in a draw game with multiple draws.

reraise

Raise after one has been raised. Also coming "over the top".

ring game

**See ring game.**

river

**See river (poker).**

river rat

A player whose hand was dominated from the start, but improves his hand on the river to win the pot.

rock

1. A very tight player (plays very few hands and only continues with strong hands).

2. A bundle of chips held together with a rubber band, or other token signifying an obligatory live straddle. If the player under the gun has the rock, he must use it to post a live straddle. The winner of the pot collects the rock and is obligated to use it in turn.

rolled-up trips

In seven-card stud, three of a kind dealt in the first three cards.

rounder

**See rounder.**

runner

A tournament entrant, a contestant.

runner-runner

A hand made by hitting two consecutive cards on the turn and river. Also "backdoor". Compare to "bad beat".

rush

Winning streak. A player who has won several big pots recently is said to be on a rush.

## S

sandbag

***See slow play (poker).***

satellite

A tournament in which the prize is a free entrance to another (larger) tournament.

scare card

*A card that comes that may have improved an opponent's hand. The Jack of spades on the turn was a scare card because it put both flush and straight possibilities on the board.*

scoop

In high-low split games, to win both the high and the low half of the pot.

semi-bluff

***See semi-bluff.***

set

Three of a kind, esp. the situation where two of the cards are concealed in the player's hole cards. Compare to "trips".

set-up

A deck that has been ordered, usually King to Ace by suit (spades, hearts, clubs and diamonds). In casinos, it is customary to use a set-up deck when introducing a new deck to the table. The set-up is spread face up for the players to demonstrate that all of the cards are present before the first shuffle. Also called to "spade the deck".

shill

See shill. Compare to "proposition player".

shootout

A poker tournament format where the last remaining player of a table goes on to play the remaining players of other tables. Each table plays independently of the others; that is, there is no balancing as players are eliminated. This format is particularly common in European televised poker programs, including Late Night Poker.

showdown

***See showdown (poker).***

side pot



A separate pot created to deal with the situation of one player going "all in". See table stakes.

16-way straight draw

A hand in draw poker such as **6e 7e 8`** (Joker), in which any of sixteen cards (4 fours, 4 fives, 4 nines, 4 tens) can fill a straight.

slow play

See slow play (poker). Also "sandbag".

slow roll

To delay or avoid showing one's hand at showdown, forcing other players to expose their hands first. When done while holding a good hand likely to be the winner, it is considered poor etiquette, because it often gives other players "false hope" that their hands might win before the slow-roller's is exposed.

small blind

**See** *blinds*.

small blind special

A situation in which (assuming no raising) a player is dealt weak hole cards in the small blind, but ends up making the best hand because they got to see a relatively inexpensive flop. Compare to "big blind special".

smooth call

**A "flat call". Compare to "cold call", "overcall".**

speeding

To play very loose with no identifiable pattern, or to bluff frequently. Also known as speeding around. Compare to "fast".

spike

When a flop is spread out, if the first card revealed is the card an underdog needs, they spike that card. More loosely, if any of the flop cards help you, then you spike it. I had Q9 to my opponent's pocket jacks, but I spiked a queen on the flop to take the lead.

splash the pot

To throw one's chips in the pot in a disorderly fashion. Not typically allowed, because the dealer can't tell how much has been bet.

split

**See** *split (poker)* **and** *high-low split*.

spread

The range between a table's minimum and maximum bets.

stack

A collection of 20 poker chips of the same denomination, usually arranged in an orderly column.

stakes

The definition of the amount one buys in for and can bet. For example, a "low stakes" game might be a \$10 buy-in with a \$1 maximum raise.

stand pat

In draw poker, playing the original hand using no draws, either as a bluff or in the belief it is the best hand.

starting hand

***See starting hand.***

steal

***See steal (poker).***

steam

Act of playing recklessly when one is frustrated. Compare to "tilt".

stop 'n go

When a player bets into another player who has previously raised or otherwise shown aggression. Example: On the flop, Bill bets into Tom, Tom raises, and Bill just calls. On the turn, Bill bets into Tom again. Bill has just pulled a stop 'n go.

straddle bet

***See straddle bets.***

straight

1. Poker hand: see straight.
2. When used with an amount, indicates that the speaker is referring to the total bet, versus the amount being raised. Alice bets twenty. Bob raises to fifty straight. Also "altogether" or "all day".

straight flush

***See straight flush.***

strategy card

A wallet sized card that is commonly used to help with poker strategies in online and casino games.

string bet

To call with one motion and raise with another, or to reach for more chips in the middle of laying a bet/raise without stating the intended amount. String bets are prohibited in public cardroom rules. Compare to "forward motion".

stuck

*Having lost money. I'm stuck \$300 right now.*

stud

1. A variant of poker. See stud poker.
2. A card dealt face up in Stud poker.

suck out

To draw a winning hand despite poor odds.

sucker straight

In community card poker variants, a straight completed on the low end of the possible straight on the board. Compare to "idiot end, ignorant end".

suited

Having the same suit. See card suits.

suited connectors

See suited connectors.

super satellite

A multi-table poker tournament in which the prize is a free entrance to a satellite tournament or a tournament in which all the top finishers gain entrance to a larger tournament.

## T

table stakes

**See** *table stakes*.

tell

**See** *tell (poker)*.

third man walking

A player who gets up from his seat in a cash game, after two other players are already away from the table, is referred to as the "third man walking". In a casino with a "third man walking rule", this player may be required to return to his seat within 10 minutes, or one rotation of the deal around the table, or else his seat in the game will be forfeited if there is a waiting list for the game.

throwing a party

A player who is playing like a fool and gambling all of their money away is said to be throwing a party.

three of a kind

**See** *three of a kind*. **Also** "*trips*", "*set*".

tight

**See** *loose/tight play*. **Compare to** "*loose*", "*aggressive*", "*passive*".

tilt

See tilt (poker). Compare to "steam".

trey

A 3-spot card. Casino personnel refer to the 3c as the "trey of clubs".

trips

**Three of a kind**. **Compare to** "*set*".

turn

*See turn (poker).*

12-way straight draw

A hand in draw poker such as **6e 7e** (Joker) 9c, in which any of twelve cards (4 fives, 4 eights, 4 tens) can fill a straight.

## U

under the gun

The playing position to the direct left of the blinds in Texas hold 'em or Omaha . The player who is under the gun must act first on the first round of betting.

underfull

In a community card game, a full house that is one of the lowest full houses possible. For example: in Texas hold 'em, a player holding a pair of deuces with a final board of 2A33Q holds an underfull (Deuces full of Treys). The highest possible full house is Aces full of Treys. Also "underboat".

up

When used with a card rank to describe a poker hand, refers to two pair with the named card being the higher pair. For example, a hand of QQ885 might be called "queens up".

upcard

See upcard.

up the ante

Increase the stake. Also commonly used outside the context of poker.

## V

value bet

*See value (poker).*

vig, vigorish

*The rake. See vigorish.*

**vnh**

Abbreviation for "very nice hand", used in online poker chat.

## W

### wash

To mix the deck by spreading the cards face down on the table and mixing them up. A dealer may wash the deck before shuffling.

### weak ace

An ace with a low kicker (e.g. four). Also "small ace," "soft ace," "ace-rag."

### wheel

See wheel.

### whipsaw

When a player is caught in the middle between two raisers and must call each bet because of the pot odds. Compare to "crossfire".

### wild card

***See wild card (poker). Compare to bug (poker).***

### window card

An upcard in stud poker. The first window card in stud is called the "door card".

### wired pair

***A "pocket pair".***

### wrap

In Omaha, the term for an open ended straight that consists of two board cards and three or four cards from a player's hand. An example would be a player holding 345A with the board 67K is said to have a "wrap" as any 3, 4, or 5, or 8 will make a straight. A hand of 4589 would also be a wrap draw, but would often be referred to as a "big wrap" due to twenty cards making the straight as opposed to thirteen in the first example.

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**Categories:** Poker gameplay and terminology

# Aggression

In the game of poker, opens and raises are considered *aggressive* plays, while calls and checks are considered *passive* (though a check-raise would be considered a very aggressive play). It is said that "aggression has its own value", meaning that often aggressive plays can make money with weak hands because of bluff value. Aggressive plays also tend to give the opponents more opportunities to make mistakes.

While it is true that aggressive play is generally superior to passive play, using any play exclusively can lead to predictability, and being too predictable is far worse than being too passive. A player who is constantly aggressive and plays many inferior hands is called a "maniac", and skilled players will take advantage of him by calling him more often, using isolation plays, and by other means.

If a player is not aggressive with his weaker hands, the opponents can safely fold whenever the player does bet or raise. The appropriate amount of aggression can be computed using game theory, and depends on the game being played and the tendencies of the opponents.

## See also

- Poker jargon
- Poker strategy
  - Bluffing plays
  - Check-raise plays
  - Defense plays
  - Drawing plays
  - Isolation plays
  - Position plays

**Categories:** Poker gameplay and terminology

# Bad beat

In poker, a *bad beat* occurs when a hand, which was at one time a big favourite to win, loses. Typically the term is only applied in this way when the player holding the eventual winning hand misplayed it spectacularly.

Alternatively, the term is also applied when a particularly strong hand loses to an even stronger one. In some casinos there is a "bad beat jackpot" awarded whenever a player suffers a particular beat.

A typical example of the first type of bad beat, in No Limit Texas hold 'em:

- Alice (the hero) holds Af Ac - pocket aces, the strongest possible starting hand.

- Bob (the villain) holds  $Qc\ 8e$  - a weak hand.

The players have the same amount of chips. Before the flop, Alice raises to 15 times the big blind, placing a fifth of her stack in the pot, and only Bob calls. The flop comes  $Ae\ 8'\ 7'$ . Although Alice has the nuts at this point, making 3 aces, she is concerned about possible draws to a straight or flush, and goes all-in with a bet that is twice the size of the pot. Bizarrely, Bob, who has only middle-pair, calls.

At this point, Bob's chances of winning are precisely 1 in 990. [1] He can only win if both the turn card and the river card are eights. Since this is a bad beat story, the turn and river naturally bring precisely that, and Bob scoops the pot, leaving Alice cursing Bob's appalling play - he should not have called such a big bet before the flop, nor on the flop.

## Reacting to bad beats

Bad beats can be infuriating, but mathematically "Alice" actually wants "Bob" to play in this manner. Bob took a gamble that should not have worked; his odds were 989-to-1 against. It worked this time, but if he continues to play in such a careless manner, he will almost certainly lose more than he wins. He is essentially giving away his money—and if Alice is careful, it will all go to her. Thus, the more stoic poker players accept bad beats as an unpleasant but necessary drawback to a tactic that works the vast majority of the time (989 of 990 instances, in this case). Nevertheless, a bad beat is often a profound psychological blow, and can easily lead to a player going on tilt. Professional player Phil Hellmuth, among others, is notorious for his pronounced reactions to bad beats.

In online poker rooms, bad beats often lead to accusations that the random number generator is "rigged", even though such beats occur in offline games.

## Bad beat jackpot

A *bad beat jackpot* is a prize that is paid when a sufficiently strong hand is shown down and loses to an even stronger hand held by another player. Not all poker games offer bad beat jackpots, and those that do have specific requirements for how strong a losing hand must be to qualify for the jackpot. For example, the losing hand may be required to be four-of-a-kind or better. There may be additional requirements as well. For example, in Texas hold 'em there is usually a requirement that both hole cards play in both the losing and winning hands. These rules vary from one cardroom to the next.

Bad beat jackpots are usually progressive, often with a small rake being taken out of each pot to fund the jackpot (in addition to the regular rake). When the jackpot is won, it is usually split among all players sitting at the table at the time of the bad beat, including players that folded their hands (usually a 25% share), with the largest shares of the jackpot going to the players holding the winning (usually 25%) and losing hand (usually 50%). Because such bad beats are rare, jackpots can grow to be quite large, sometimes reaching hundreds of thousands of dollars.

**Categories:** Poker gameplay and terminology

# Betting

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## Procedure

Players in a poker game act in turn, in clockwise rotation (acting out of turn is a breach of etiquette and can negatively affect other players). When it is a player's turn to act, the first verbal declaration or action he takes binds him to his choice of action; this is to prevent a player from changing his action after seeing how other players react to his first action.

A player may fold by surrendering his cards (some games may have specific rules--for example, in stud poker one must turn one's upcards face down). A player may check by rapping the table or making any similar motion. All other bets are made by placing chips in front of the player, but not directly into the pot (this is called "splashing" the pot, and is also a breach of etiquette, because it prevents other players from verifying the bet amount).

## Open

The act of making the first voluntary bet in a betting round is called *opening* the round. On the first betting round, it is also called *opening the pot*. Some poker variations have special rules about opening a round that may not apply to other bets. For example, a game may have a betting structure that specifies different allowable amounts for opening than for other bets, or may require a player to hold certain cards to open.

## Call

To *call* is to match a bet or raise. A betting round ends when all active players have bet an equal amount or no opponents call a player's bet or raise. If no opponents call a player's bet or raise, the player wins the pot and the hand is over.

The second and subsequent calls of a particular bet amount are sometimes called *overcalls*. A player calling a raise before he or she has invested money in the pot in that round is *cold calling*. For example, if in a betting round, Alice bets, Bob raises, and Carol calls, Carol "calls two bets cold". A player calling instead of raising with a strong hand is *smooth calling*, a form of slow play.

In public card rooms and casinos where verbal declarations are binding, the word "call" is such a declaration. In particular, the practice of saying "I call, and raise \$100" is considered a *string raise* and is not allowed. Saying "I call" commits you to the action of calling, and only calling.

## Check

If no one has yet opened the betting round, a player may *check*, which is equivalent to calling the current bet of zero. When checking, a player declines making a bet; indicating that he does not choose to open, but that he wishes to keep his cards and retain the right to call or raise later in the same round if an opponent opens. In games played with blinds, players

may not check on the opening round because they must either match (or raise) the big blind or fold. A player with a *live big blind* who chooses not to exercise his right to raise is said to *check his option*. If all players check, the betting round is over. A common way to signify checking is to tap the table with a fist or an open hand.

## Raise

To *raise* is increase the size of the bet required to stay in the pot, forcing all subsequent players to call the new amount. If the current bet amount is nothing, this action is considered the opening bet. A player making the second (not counting the open) or subsequent raise of a betting round is said to *reraise*.

Standard poker rules require that any raise must at least equal the amount of the previous raise. For example, if a player in a spread-limit or no-limit game bets \$5, the next player may raise by another \$5 or more, but he may not raise by only \$2, even if that would otherwise conform to the game's betting structure. The primary purpose of this rule is to avoid game delays caused by "nuisance" raises (small raises of large bets that do not affect the bet amount much but that take time). This rule is overridden by table stakes rules, so that a player may in fact raise a \$5 bet by \$2 if that \$2 is his entire remaining stake.

In most casinos, fixed-limit and spread-limit games cap the total number of raises allowed in a single betting round (typically three or four, not including the opening bet of a round). For example in a casino with a three-raise rule, if one player opens the betting for \$5, the next raises by \$5 making it \$10, a third player raises another \$5, and a fourth player raises \$5 again making the current bet \$20, the betting is said to be *capped* at that point, and no further raises beyond the \$20 level will be allowed on that round. It is common to suspend this rule when there are only two players betting in the round (called being *heads-up*), since either player can call the last raise if they wish. Pot-limit and no-limit games do not have a limit on the number of raises.

## Fold

To *fold* is to discard one's hand and forfeit interest in the current pot. Folding may be indicated verbally or by discarding one's hand facedown into the pile of other discards called the *muck*. In stud poker played in the United States, it is customary to signal folding by turning all of one's cards face down. In casinos in the United Kingdom, a player folds by giving his hand as is to the "house" dealer, who will spread the hand's upcards for the other players to see before mucking them.

It is a serious breach of etiquette to fold *out of turn*, that is, when it is not the folding player's turn to act, because this can harm other players. For example, if there are three players remaining and the first player in turn bets, the third player folding out of turn gives valuable strategic information to the second player (who is *in turn* at this point), to the detriment of the bettor. In some games, even folding in turn when a player is entitled to check (because there is no bet facing the player) is considered an out of turn fold since it gives away

information to which other players would otherwise not be entitled. Finally, if a player folds out of turn in a stud poker game, the player in turn may demand that his upcards remain exposed until he has completed his turn. When folding, concealed cards should not be exposed unless no further betting is possible in the hand (i.e., unless the fold awards the pot to the only remaining player). A player is never required to expose his concealed cards when folding prior to the showdown.

## **Forced bets**

All poker games require some forced bets in order to create an initial stake for the players to contest. The requirements for forced bets, and the betting limits of the game (see below) are collectively called the game's betting structure.

### **Ante**

An ante is a forced bet in which each player places an equal amount of money or chips into the pot before the deal begins. In games where the acting dealer changes each turn, it is not uncommon for the players to agree that the dealer provides the ante for each player. This simplifies betting, but causes minor inequities if other players come and go or miss their turn to deal.

### **Blinds**

A *blind* or *blind bet* is a forced bet placed into the pot by one or more players before the deal begins, in a way that simulates bets made during play. The most common use of blinds as a betting structure calls for two blinds: the player after the dealer blinds about half of what would be a normal bet, and the next player blinds what would be a whole bet. Sometimes only one blind is used, and sometimes three. In the case of three blinds (usually one quarter, one quarter, and half a normal bet amount), the first blind goes "on the button", that is, is paid by the dealer.

For example, in a \$2-\$4 limit game, the first player to the dealer's left (who, if not for the blinds, would be the first to act) makes a blind bet of \$1, and the next player in turn posts a big blind of \$2. After the cards are dealt, play begins with the next player in turn (third from the dealer), who must either call \$2, raise, or fold. When the betting returns to the player who blinded \$1, he must equal the bet facing him (toward which he may count his \$1), raise, or fold. If there have been no raises when action first gets to the big blind (that is, the bet amount facing him is just the amount of the big blind he posted), the big blind has the option to raise or check. This right to raise (called the option) occurs only once: if his raise is now called by every player, the first betting round closes as usual.

In some fixed-limit and spread-limit games, the big blind amount may be less than the normal betting minimum. Players acting after a sub-minimum blind have the right to call the

blind as it is, even though it is less than the amount they would be required to bet, or they may raise the amount needed to bring the current bet up to the normal minimum, called completing the bet. For example, a game with a \$5 fixed bet on the first round might have blinds of \$1 and \$2. Players acting after the blind may either call the \$2, or raise to \$5. After the bet is raised to \$5, the next raise must be to \$10 in accordance with the normal limits.

### **When a player in the blinds leaves the game**

When one or more players in the small or big blinds leaves the game, an adjustment is required in the positioning of the blinds and the button. The two most common tournament rules for handling this situation are the dead button and the moving button rules. In online card rooms, a simplified moving button rule is usually employed. Note that other variations on these rules exist. [1][2][3]

#### **Dead button rule**

Under the dead button rule, the big blind is posted by the player due for it, and the small blind and button are positioned accordingly, even if this means the small blind or the button is placed in front of an empty seat, giving the same player the privilege of last action on consecutive hands.

- If the small blind busts out (leaves the game), the button moves to the seat vacated by the eliminated small blind. The player who was the big blind now posts the small blind and the player to his left posts the big blind. Since the button is now located at an empty seat, the player who was the button will, in effect, be the button once again.
- If the big blind busts out, the button moves to the player who was the small blind and the player to the left of the eliminated big blind posts the big blind. There is no small blind for that hand. On the following deal, the button moves to the empty seat vacated by the eliminated player and the two players to the left post the normal blinds. Since the button is now located at an empty seat, the player who was the original small blind will, in effect, be the button once again.
- If both blinds bust out, the same player will effectively be the button three hands in a row. The button moves to the now empty seat vacated by the eliminated small blind and the player to the left of the eliminated big blind posts the big blind. There is no small blind for that hand. On the following deal, the button moves to the next empty seat (the seat vacated by the eliminated big blind player) and the two players to the left post the normal blinds.

#### **Moving button rule**

Under the moving button rule, the button always moves forward so that a player never has the right to act last for two consecutive hands. The blinds adjust accordingly, which may

result in more than one small blind, and/or more than one big blind being posted in a given hand.

These rules are always followed when assigning the blinds:

1. The button always moves forward to the next seat occupied by a player.
2. The player two seats to the left of the button always posts a big blind, as well as any players that the big blind has skipped past.
3. Any player that posted a big blind in the previous hand, must post a small blind.

For the following examples, consider a hand just finished with Alice, Bob, Carol, David, and Ellen seated in order after the previous hand's dealer. Alice was the small blind in the previous hand, and Bob was the big blind.

- Under normal conditions, Alice will have the button the next hand, Bob will post the small blind, and Carol will post the big blind.
- If Alice busts out, or steps away from the table, the button will skip past the vacated seat to Bob. Bob will post his small blind on top of the button. Carol and David will both post big blinds.
  - The subsequent hand, Carol will have the button. Carol and David will both post small blinds, and Ellen will post the big blind.
- If Bob busts out or leaves the table, the button will move to Alice. Carol and David will both post big blinds.
  - The subsequent hand, Carol will post a small blind on the button. David will post a small blind and Ellen will post the big blind.
- If Alice and Bob both bust out, or step away from the game, the button will skip ahead to Carol. Carol, David, and Ellen will all post big blinds.
  - The subsequent hand, David will have the button. Carol will post a small blind behind the button, as well as David and Ellen posting small blinds, and the player after Ellen posting the big blind.

The moving button system can cause irregular blinds for several hands after a player leaves the game, and further complications can arise if players bust out on consecutive hands. However, the blinds will always eventually resolve to their normal positions.

#### Simplified moving button rule

Under the simplified moving button rule, normally used in on-line card rooms, the button always moves forward to the next player and the small and big blinds post in the two seats to the left of the button. Players may miss blinds.

### **When there are only two players**

The normal rules for positioning the blinds do not apply when there are only two players at the table. The player on the button is always due the small blind, and the other player must pay the big blind. The player on the button is therefore the first to act before the flop, but last to act for all remaining betting rounds.

A special rule is also applied for placement of the button whenever the size of the table shrinks to two players. If three or more players are involved in a hand, and at the conclusion of the hand one or more players have busted out such that only two players remain for the next hand, the position of the button may need to be adjusted to begin heads-up play. The big blind always continues moving to the left, and then the button is positioned accordingly. For example, in a three-handed game, Alice is the button, Bob is the small blind, and Carol is the big blind. If Alice busts out, the next hand Bob will be the big blind, and the button will skip past Bob and move to Carol. On the other hand, if Carol busts out, Alice will be the big blind, Bob will get the button and will have to pay the small blind for the second hand in a row.

### **Bring-ins**

A *bring-in* is a type of forced bet that occurs after the cards are initially dealt, but before any other action. One player, usually chosen by the value of cards dealt face up on the initial deal, is forced to open the betting by some small amount, after which players act after him in normal rotation.

The bring-in is normally assigned on the first betting round of a stud poker game to the player whose upcards indicate the poorest hand. For example, in traditional high hand stud games and high-low split games, the player showing the lowest card pays the bring-in. In low hand games, the player with the highest card showing pays the bring-in. The high card by suit order can be used to break ties if necessary.

In most fixed-limit and some spread-limit games, the bring-in amount is less than the normal betting minimum. The player forced to pay the bring-in may choose either to pay only what is required or to make a normal bet. Players acting after a sub-minimum bring-in have the right to call the bring-in as it is, even though it is less than the amount they would be required to bet, or they may raise the amount needed to bring the current bet up to the normal minimum, called *completing* the bet. For example, a game with a \$5 fixed bet on the first round might have a bring-in of \$2. Players acting after the bring-in can either call the \$2, or raise to \$5. After the bet is raised to \$5, the next raise must be to \$10 in accordance with the normal limits.

In a game where the bring-in is equal to the fixed bet (this is rare and not recommended), the game must either allow the bring-in player to optionally come in for a raise, or else the bring-in must be treated as *live* in the same way as a blind, so that the player is guaranteed his right to raise on the first betting round if he chooses.

## Straddle bets

A straddle bet is an optional (voluntary) blind bet made by a player before receiving his cards. Straddles are only used in games played with blind structures. Straddles are normally not permitted in tournament formats.

### Live straddle

The player immediately to the left of the big blind may place a live straddle blind bet. The straddle must be a raise over the big blind. A straddle is a live bet; the player placing the straddle effectively becomes the "bigger blind". Action begins with the player to the left of the straddle. If action returns to the straddle without a raise, the straddle has the option to raise. The player to the left of a live straddle may re-straddle by placing a blind bet raising the original straddle. [4][3]

### Mississippi straddle

A Mississippi straddle buys last action before the flop. House rules permitting Mississippi straddles are common in the southern United States. Usually, a Mississippi straddle can be made from any position, although some house rules only permit the button or the player to the right of the button to place a Mississippi straddle. Like a live straddle, a Mississippi straddle must be at least the minimum raise. Action begins with the player to the left of the straddle. If, for example (in a game with \$10-\$25 blinds), the button puts a live \$50 on it, the first player to act would be the small blind, followed by the big blind, and so on. If action gets back to the straddle with no raise, the straddle has the option of raising. The player to the right of a Mississippi straddle may re-straddle by placing a blind bet raising the original straddle. [5]

### Sleepers

A sleeper is a blind raise placed from any position at the table other than under the gun.[6]

## Limits

Betting limits apply to the amount a player may open or raise, and come in four common forms: no limit, pot limit (the two collectively called *big bet poker*), fixed limit, and spread limit.

All such games have a minimum bet as well as the stated maximums, and also commonly a *betting unit*, which is the smallest denomination in which bets can be made. For example,

it is common for games with \$20 and \$40 betting limits to have a minimum betting unit of \$5, so that all bets must be in multiples of \$5, to simplify game play. It is also common for some games to have a bring-in that is less than the minimum for other bets. In this case, players may either call the bring-in, or raise to the full amount of a normal bet, called *completing* the bet.

Outside of the United States, pot-limit and no-limit games are the most common. Many American home games are played with a spread limit, while casino games are often played with spread or fixed limits, though many casinos may have pot-limit or no-limit games as well. Fixed-limit and spread-limit games emphasise the skill of estimating odds, whereas pot-limit and no-limit games emphasize the skills of game theory and psychology. Almost all poker players believe that pot-limit and no-limit poker involve more skill than fixed-limit play. A few prominent players, most notably Mason Malmuth, believe that the richer tactics make fixed limit more skilled. Although the main event at the World Series of Poker is played no limit, most high stakes cash games are fixed limit, so it is unclear which format is the experts' choice.

## Fixed limit

In a game played with a *fixed-limit* betting structure, a player chooses only whether to bet or not - the amount is fixed by rule. To enable the possibility of bluffing, the fixed amount generally doubles at some point in the game. This double wager amount is referred to as a *big bet*.

For example, a four-round game called "20 and 40 limit" (usually written as \$20/\$40) may specify that each bet in the first two rounds is \$20, and that each **big bet** used in the third and fourth rounds is \$40. This amount applies to each raise, not the total amount bet in a round, so a player may bet \$20, be raised \$20, and then re-raise another \$20, for a total bet of \$60, in such a game.

## Maximum number of raises

Most fixed-limit games will not allow more than a predefined number of raises in a betting round. The maximum number of raises depends on the casino house rules, and is usually posted conspicuously in the card room. Typically, an initial bet plus three raises, or a bet and four raises, are allowed.

Consider this example in a \$20/\$40 game, with a posted limit of a bet and three raises. During a \$20 round with three players, play could proceed as follows:

- Player A bets \$20.
- Player B puts in another bet, raises another \$20, making it \$40 to play.
- Player C puts in a third bet, raising another \$20 on that, thus making it \$60 to play.
- Player A puts in the fourth bet (she is usually said to *cap* the betting).



Once Player A has made her final bet, Players B and C may only call another two and one bets (respectively); they may not raise again because the betting is *capped*.

A common exception in this rule practiced in some card rooms is to allow unlimited raising when a pot is played heads up (when only two players are in the hand at the start of the betting round). Usually, this has occurred because all other players have folded, and only two remain. Many card rooms will permit these two players to continue re-raising each other until one player is all in.

### **Kill game**

Sometimes a fixed-limit game is played as a *kill game*. Such a game is played with an additional blind, called the kill blind. The kill blind can be posted from any position at the table. The amount posted is typically twice the typical blind for that game. For example, in a \$20/\$40 game, the large blind is typically \$20. If this game were played with a full kill, the kill blind would be \$40. It is also common to find a game with a half kill. For example, when the kill is active in \$4/\$8 game with a half kill, the game is played at a \$6/\$12 limit. When the kill blind is posted, it changes the stakes of the game. For that hand, the game is played as if the game were a higher limit. In a \$20/\$40 game with a full kill blind posted, the hand is played as if the limit were \$40/\$80. The kill is said to be active when the kill blind is posted and the game is played at the higher limit.[7][3]

Rules on how the kill is activated vary. On the east coast of the USA, the kill is typically activated by the previous pot being over a particular value. The most typical value is ten times the value of the large bet (in a \$20/\$40 game, the kill would be active if the previous pot won was greater than \$400). The winner of that pot is required to post the kill blind for the next hand. In the Pacific Northwest of the USA, a kill is typically activated when a particular player wins two pots in a row. After that player wins her second pot, she is required to post a kill blind and the kill is active for the next hand.

The term *kill*, when used in this context, should not be confused with killing a hand, which is a term used for a hand that was made a dead hand by action of a game official.

### **Spread limit**

A game played with a *spread-limit* betting structure allows a player to raise any amount within a specified range.

For example, a game called "one to five limit" allows each bet to be anywhere from \$1 to \$5 (subject to other betting rules). These limits are typically larger in later rounds of multi-round games. For example, a game might be "one to five, ten on the end", meaning that early betting rounds allow bets of \$1 to \$5, and the last betting round allows bets of \$1 to \$10.

### **Pot limit**

A game played with a *pot-limit* betting structure allows any player to raise up to an amount equal to the size of the whole pot before the raise.

For example, let us assume that there is \$10 in the pot at the start of a betting round. The first player may open the betting for up to \$10. If he does in fact open for \$10, the next player may raise to \$40 (after calling the \$10 bet, the total amount of the pot is \$30, so he may raise \$30). The third player would be entitled to raise to \$140 (after calling \$40, the pot would contain \$100, thus he may raise \$100). Any player may also raise less than the maximum so long as the amount of the raise is equal to or greater than any previous bet or raise in the same betting round.

Some pot-limit games make exceptions to the method described above when calculating the maximum raise in the betting round before the flop:

- Some structures treat the little blind as if it were the same size of the big blind in computing pot size. In such a structure, a player can open for a maximum of four times the size of the big blind. For example, if the blinds are \$5 and \$10, a player may open with a raise to \$40. (The range of options is to either open with a call of \$10, or raise in increments of five dollars to any amount from \$20 to \$40.) Subsequent players also treat the \$5 as if it were \$10 in computing the pot size, until the big blind is through acting on the first betting round.[8]
- If the action folds all the way around to the small blind, the maximum amount the small blind can raise is also not universally agreed upon. Some games treat the big blind as a "raise" of the small blind for the purpose of calculating the maximum raise—the small blind is allowed to call the big blind, and then make a pot sized raise of twice the big blind, for a total bet of three times the big blind. Other games treat the blinds as dead money for the purpose of calculating the raise, and allow the small blind to make the same size raise as any other player, i.e. a total bet of three times the big blind plus the small blind.

Because of the disparity in methods of calculation, and the fact that the issue is certain to come up often, most major tournaments will announce the amount of the maximum opening raise to all players any time the betting limits are increased.

## **No limit**

A game played with a *no-limit* betting structure allows each player to raise any amount of his stake at any time (subject to the table stakes rules and any other rules about raising).[9]

## **Table stakes rules**

All casinos and many home games play poker by what are called *table stakes* rules, which state that each player starts each deal with a certain stake, and plays that deal with that stake. He may not remove money from the table or add money from his pocket during the play of a hand. Nor is a player allowed to hide or misrepresent the amount of his stake from other

players; he must truthfully disclose the amount when asked. This requires some special rules to handle the case when a player is faced with a bet that he cannot call with his available stake.

### **"All in"**

When a player is faced with a current bet amount that he has insufficient remaining stake to call and he wishes to call (he may of course fold without the need of special rules), he bets the remainder of his stake and declares himself *all in*. He may now hold onto his cards for the remainder of the deal as if he had called every bet, but he may not win any more money from any player above the amount of his bet.

For example, let's assume that the first player in a betting round opens for \$20, and the next player to bet has only \$5 remaining of his stake. He bets the \$5, declaring himself all in, and holds onto his cards. The next player in turn still has the \$20 bet facing him, and if he can cover it he must call \$20 or fold. If he calls \$20, thus ending the betting round, instead of collecting all bets into the central pot as usual, the following procedure is applied: since there is an all-in player with only \$5 bet, his \$5, and \$5 from each of the other players, is collected into the central pot (now called the *main pot*), as if the final bet had been only \$5. This main pot (which may include any antes or bets from previous rounds) is the most the all-in player is eligible to win. The remaining money from the still-active bettors, in this case \$15 apiece, is collected into a *side pot* that only the players who contributed to it are eligible to win. If there are further betting rounds, all bets are placed into the side pot while the all-in player continues to hold his cards but does not participate in further betting. Upon the showdown, the players eligible for the side pot—and only those players—reveal their hands, and the winner among them takes the side pot, regardless of what the all-in player holds (indeed, before he even shows). After the side pot is awarded, the all-in player then shows his hand, and if it is superior to all others shown, he wins the main pot (otherwise he loses as usual).

There is a strategic advantage to being all in: a player cannot be bluffed, because he is entitled to hold his cards and see the showdown without risking any more money. Opponents who continue to bet after the player is all in can still bluff each other out of the side pot, which is also to the player's advantage since bluffing between opponents may reduce his competition. But these advantages are offset by the disadvantage that the player cannot win any more money than what his stake can cover.

### **All-in before the deal**

If a player does not have sufficient money to cover the ante and blinds due, that player is automatically all-in for the coming hand. Any money the player holds must be applied to the ante first, and if the full ante is covered, the remaining money is applied towards the blind.

If a player is all-in for part of the ante, or the exact amount of the ante, an equal amount of every other player's ante is placed in the main pot, with any remaining fraction of the ante and all blinds and further bets in the side pot.

If a player is all-in for part of a blind, all antes go into the main pot. Players to act must call the complete amount of the big blind to call, even if the all-in player has posted less than a full big blind. At the end of the betting round, the bets and calls will be divided into the main pot and side pot as usual.

For example, Alice is playing at a table with 10 players in a tournament with an ante of \$100 and blinds of \$400/\$800. Alice is due the big blind but she only has \$800. She must pay the \$100 ante and apply the remaining \$700 towards the big blind, and she is all-in. Bob, next to act, calls \$800, the full big blind amount. Carol raises to \$1600 total. All remaining players fold, the small blind folds, and Bob folds. The amount in the main pot is \$1000 (the sum of all antes) plus the full \$400 small blind since Alice had this amount covered, plus \$700 from Alice and every other player who called at least that amount, namely Bob and Carol. The main pot is therefore  $\$1000 + \$400 + \$2100 = \$3500$ . The side pot of \$1000 (\$100 in excess of Alice's all-in from Bob, and \$900 in excess of Alice's all-in from Carol) is paid immediately to Carol when Bob folds.

### **Incomplete raise**

If a player goes all in with a raise rather than a call, another special rule comes into play. There are two options in common use: pot-limit and no-limit games usually use what is called the *full bet rule*, while fixed-limit and spread-limit games may use either the full bet rule or the *half bet rule*. The full bet rule states that if the amount of an all-in raise does not equal the full amount of the previous raise, it does not constitute a "real" raise, and therefore does not reopen the betting action. The half bet rule states that if an all-in raise is equal to or larger than half the bet being raised, it does constitute a raise and reopens the action.

For example, a player opens the betting round for \$20, and the next player has a total stake of \$25. He may raise to \$25, declaring himself all in, but this does not constitute a "real" raise, in the following sense: if a third player now calls the \$25, and the first player's turn to act comes up, he must now call the additional \$5, but he does not have the right to reraise further. The all-in player's pseudo-raise was really just a call with some extra money, and the third player's call was just a call, so the initial opener's bet was simply called by both remaining players, closing the betting round (even though he must still equalize the money by putting in the additional \$5). If the half bet rule were being used, and the all-in player had raised to \$30 instead of \$25, then that raise would count as a genuine raise and the first player would be entitled to reraise if he chose to (this would create a side pot for the amount of his reraise and the third player's call, if any).

## Opening all-in hands

When all players are all in, or one player is playing only against opponents who are all in, no more betting can take place. Some casinos and many major tournaments require that all players still involved *open*, or immediately reveal, their hole cards in this case—the dealer will not continue dealing until all hands are flipped up. Likewise, any other cards that would normally be dealt face down, such as the final card in seven-card stud, may be dealt face-up. This rule discourages a form of collusion called "chip dumping", in which one player deliberately loses his chips to another to give that player a greater chance of winning the tournament.

## Open stakes

The alternative to table stakes rules is called "open stakes", in which players are allowed to buy more chips during the hand and even to borrow money (often called "going light"). This may be appropriate for home or private games but is never allowed in casinos.

First, a player may go all in in exactly the same manner as in table stakes if he so chooses, rather than adding to his stake or borrowing. Because it is a strategic advantage to go all in with some hands while being able to add to your stake with others, such games should strictly enforce a minimum buy-in that is several times the maximum bet (or blinds, in the case of a no-limit or pot-limit game). A player who goes all in and wins a pot that is less than the minimum buy-in may not then add to his stake or borrow money during any future hand until he rebuys an amount sufficient to bring his stake up to a full buy-in.

A player may instead choose to buy chips with cash out-of-pocket at any time, even during the play of a hand, and his bets are limited only by the specified betting structure of the game.

Finally, a player may also borrow money by betting with an IOU, called a "marker", payable to the winner of the pot. In order to bet with a marker, all players still active in the pot must agree to accept the marker. If any player refuses to accept a marker, the bettor may bet with cash out-of-pocket or go all-in. A player may also borrow money from a player not involved in the pot, giving him a personal marker in exchange for cash or chips, which the players in the pot are then compelled to accept. A player may borrow money in order to call a bet during a hand, and later in the same hand go all-in in the face of further betting; but if a player borrows money in order to raise, he forfeits the right to go all-in later in that same hand--if he is reraised, he must borrow money to call, or fold.

Just as in table stakes, no player may remove chips or cash from the table once they are put in play (except small amounts for refreshments, tips, and such)--this includes all markers, whether one's own or those won from other players.

Players should agree before play on the means and time limits of settling markers, and a convenient amount below which all markers must be accepted to simplify play.

## See also

- [Poker strategy](#)
- [Public cardroom rules \(poker\)](#)

## Notes

1. <sup>^</sup> [Blinds And The Dealer Button](#), Caro & Cooke's Rules of Real Poker
2. <sup>^</sup> [Dead Button vs. Moving Button](#)
  3. <sup>^ a b c</sup> [Laws of Poker \(PDF\)](#), United States Poker Association
  4. <sup>^</sup> [What is a straddle bet?](#), [rec.gambling.poker FAQ](#)
5. <sup>^</sup> [Travel With Me ... Bay Area, Mississippi, and Reno — Part V](#), **Full Contact Poker, by Daniel Negreanu**
6. <sup>^</sup> [Caro & Cooke's Rules of Real Poker: Straddles and Sleepers](#) **by Mike Caro and Roy Cooke with John Bond**
7. <sup>^</sup> [What is a kill pot? What is a game with a kill? What is a half kill?](#), [rec.gambling.poker FAQ](#)
  8. <sup>^</sup> [What does pot-limit mean?](#), [rec.gambling.poker FAQ](#)
9. <sup>^</sup> [What are the betting and raising rules in No Limit?](#), [rec.gambling.poker FAQ](#)  
**Categories:** [Poker gameplay and terminology](#)

## Big bet

In a fixed-limit poker game, a *big bet* (BB) is the larger of two fixed bet amounts. A big bet is used in the final rounds of a game to increase the pot amount and thereby enable the possibility of a bluff. Big bets are generally double the wager of the initial or small bet. Any multi-round poker game can use big bets to standardize wagers while maintaining a sufficient risk-ratio to encourage bluffing. Casino poker tables use big bets to set a limit to the amount of money a patron can lose in each wager.

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  - [2.2 Texas hold 'em](#)
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  - [2.4 Casino style seven-card stud](#)

## **Statistical Analysis**

Big bets are used in place of variable limit raises to add considerable risk to staying in a game until a hand is shown. This added risk enables other players to bluff or to win a considerable pot when proving that they weren't bluffing. Other methods of adding structure to poker games include buy-in limits and maximum raise limits. Some sort of table or bet limits are required in poker to keep a person with the "deepest pockets" from "buying the game."

## **Examples**

While any multi-round poker game can use big bets, the unlimited buy-in nature of casino style play is best suited for BB limits. Casinos can advertise the relatively low maximum wager of the BB as a way of attracting players, and players can join the table at any time.

### **Casino style draw poker**

Big bets are used in draw poker during the final round of betting to weed out tentative players. In theory, only those committed to their hand after seeing their final cards will be motivated to wager twice as much as their previous bet. In practice, however, additional motivation for players to fold is usually needed in a single draw game such as: a half-pot limit, a pot limit, or a spread limit. No limit poker is only employed when table limits are imposed, thereby disallowing casino guests to join the table after play has started.

### **Texas hold 'em**

In a \$2/\$4 Texas hold 'em game, the big bet would be \$4, wagered in each bet of the last two cards. The \$2 would be the small bet, wagered during all other bets of the game. Given that a small bet is generally half of a big bet and that a small blind is generally half of the small bet, the minimum BB in casino style holdem is four cents. On the other side of the scale, the largest required BB in regular play is that of \$8000 at the Bellagio in Las Vegas. At this table, professionals like Doyle Brunson, Phil Ivey, Daniel Negreanu, Chau Giang, and Gus Hansen, along with wealthy tourists, are required to wager \$8000 in each bet of each of the final two rounds of the game.

### **Omaha hold 'em**

Big Bets are used in Omaha poker to allow buy-ins of players at any time. The American casino variant of Omaha, called Omaha Eight-or-Better has a greater odds of winning and

therefore less motivation to fold with a tentative hand. For that reason Omaha Eight-or-Better is sometimes played in a pot limit betting structure instead of big bets.

### **Casino style seven-card stud**

Big bets are used in seven-card stud, generally after the last upcard, to motivate tentative players who already have a lot of money in the pot to fold anyway. By the last upcard, seven-card stud players have wagered an ante and three rounds of betting. With that much money already in the pot, there is little motivation to drop out during the final two rounds of betting, especially when there is a possibility that another player may be bluffing. The effect of adding the requirement of a big bet to the final two rounds of seven-card stud betting is that the game becomes one more of skill than of luck.

**Categories:** Poker gameplay and terminology

## **Blind**

*The blinds* is a term used to describe the two forced bets posted by players to the left of the dealer in flop-style poker games.

The blinds exist because Omaha and Texas hold 'em are generally played without antes, allowing a player to fold his hand without placing a bet. The blind bets introduce a regular cost to partake in the game, thus inducing a player enter pots in an attempt to compensate for the expense.

Generally, the "big blind" is equal to the minimum bet, and is twice as much as the "small blind". The small blind is posted by the player to the left of the dealer button while the big blind is posted by the player two to the left of the dealer button. After the cards are dealt, the player to the left of the big blind is the first to act during the first betting round.

**Categories:** Poker gameplay and terminology

## **Bluff**

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In the card game of poker, to *bluff* is to bet or raise with an inferior hand, or with a hand believed to be inferior. The term is also used as a noun: a *bluff* is the act of bluffing.

## Pure Bluff

A pure bluff, or stone-cold bluff, is a bet or raise with an inferior hand that has little or no chance of improving. A player making a pure bluff believes he can only win the pot if all opponents fold. The pot odds for a bluff are the ratio of the size of the bluff to the pot. A pure bluff has a positive expectation (will be profitable in the long run) when the probability of being called by an opponent is lower than the pot odds for the bluff.

For example, if after all the cards are out, a player holding a busted drawing hand may decide the only way to win the pot is to make a pure bluff. If the player bets the size of the pot on a pure bluff, the bluff will have a positive expectation if the probability of being called is less than 50%. Note, however, that the opponent may also consider the pot odds when deciding whether call. In this example, the opponent will be facing 1-to-2 pot odds for the call. The opponent will have a positive expectation for calling the bluff if the opponent believes the probability the player is bluffing is at least 33%.

## Semi-bluff

In games with multiple betting rounds, to bluff on one round with an inferior or drawing hand that might improve in a later round is called a semi-bluff. A player making a semi-bluff can win the pot two different ways: all opponents fold immediately or by catching a card to improve the player's hand.

For example, a player in a stud poker game with four spade-suited cards showing (but none among their downcards) on the penultimate round might raise, hoping that his opponents believe he already has a flush. If his bluff fails and he is called, he still might be dealt a spade on the final card and win the showdown (or he might be dealt another non-spade and try his bluff again, in which case it is a pure bluff on the final round rather than a semi-bluff).

## Bluffing circumstances

Bluffing may be more effective in some circumstances than others. Bluffs have a higher expectation when the probability of being called decreases. Several game circumstances may decrease the probability of being called (and increase the profitability of the bluff):

- Fewer opponents who must fold to the bluff.
- The bluff provides less favorable pot odds to opponents for a call.

- A scare card comes that increases the number of superior hands that the player may be perceived to have.
- The player's betting pattern in the hand has been consistent with the superior hand they are representing with the bluff.
- The opponent's betting pattern suggests the opponent may have a marginal hand that is vulnerable to a greater number of potential superior hands.
- The opponent's betting pattern suggests the opponent may have a drawing hand and the bluff provides unfavorable pot odds to the opponent for chasing the draw.
- Opponents are not irrationally committed to the pot.

## **Optimal bluffing frequency**

If a player bluffs too infrequently, observant opponents will recognize that the player is betting for value and will only call with very strong hands or with drawing hands when they are receiving favorable pot odds. If a player bluffs too frequently, observant opponents snap-off his bluffs by calling or reraising. Occasional bluffing disguises not just the hands a player is bluffing with, but also his legitimate hands that opponents may think he may be bluffing with. David Sklansky, in his book *The Theory of Poker*, states "Mathematically, the optimal bluffing strategy is to bluff in such a way that the chances against your bluffing are identical to the pot odds your opponent is getting."

Optimal bluffing also requires that the bluffs must be performed in such a manner that opponents cannot tell when a player is bluffing or not. To prevent bluffs from occurring in a predictable pattern, game theory suggests the use of a randomizing agent to determine whether to bluff. For example, a player might use the colors of his hidden cards, the second hand on his watch, or some other unpredictable mechanism to determine whether to bluff.

## **Bluff (the game)**

Bluff is an ancient predecessor of poker played in the 1800s, where only the cards from 10 to ace were used, and straights and flushes hadn't been invented yet.

## **See also**

- Poker jargon
- Poker strategy
  - Aggressive plays
  - Check-raise plays
  - Defense plays
  - Drawing plays
  - Isolation plays

- Position plays
- Protection plays
- Slow plays
- Stealing plays

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**Categories:** Poker gameplay and terminology

## Bug

A *bug* in poker is a limited form of wild card. One or both jokers are often added to the deck and played as bugs.

The bug is played as an ace unless it can be used as missing card to complete a straight or flush. For example, the hand *K-K-X-5-2* is just a pair of kings (with an ace kicker), but any four same-suit cards with a bug make a flush, and a hand such as *7-X-5-4-3* makes a straight.

In draw poker, when a bug is in play, this makes the highest possible hand five aces, rather than a royal flush, and also increases the odds of improving a hand when drawing to three of a kind with an ace kicker.

**Categories:** Poker gameplay and terminology

## Burn card

In card games, a *burn card* is a playing card dealt from the top of a deck, and discarded ("burned"), unused by the players. Burn cards are almost always placed in the discard pile face down, players do not know what card was burned.

Burning is performed in casinos. It deters a form of cheating known as card marking; in poker, the top card of the deck stub is burned at the beginning of each betting round, so that players who might have been able to read markings on that card during the previous round are less able to take advantage of that information. Knowledge of a burn card might be marginally useful, such as knowing there is one less Ace in the deck, but far less so than having it in play. [1]

Burning also provides extra cards for use when an irregularity of play occurs. Sometimes a mis-dealt card (such as one of the down cards in poker that has flashed during the deal) will be used as the burn card — in those cases, the card should be immediately placed face up on the deck after the deal is complete.

### Notes

1. ^ What is a burn card and why is it dealt?, **rec.gambling.poker FAQ**

**Categories:** Poker gameplay and terminology

## Button

In poker, the *buck* or *dealer button* is a marker used to indicate the player who is dealing or, in casino games with a house dealer, the player who acts last on that deal (who would be the dealer in a home game). The term *button* is also used for a variety of plastic discs, or lammers, used by casinos to mark status of players.

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- 1 History
- 2 Dealer button
- 3 Other buttons
- 4 See also

### History

When poker became a popular saloon game in the United States in the middle of the nineteenth century, the integrity of the players was unreliable and the honor codes that had

regulated gambling for centuries became inadequate. Because the dealer has the greatest opportunity to cheat (by manipulating the specific cards that players receive, or by inspecting the dealt cards), the players would take turns in this role. To avoid arguments about whose turn it was to deal, the person who was next due to deal would be given a marker. A knife was a common object used as such a marker, and the marker became generally known as a buck as an abbreviated reference to the buck's horn that formed the handle of many knives at that time.

When the dealer had finished dealing the cards he "passes the buck". According to Martin, the earliest use of the phrase in print is in the July 1865 edition of *Weekly New Mexican*: "They draw at the commissary, and at poker after they have passed the buck.". The phrase then appears frequently in many sources so it probably originated at about this time. US president Harry S. Truman's use of the slogan "the buck stops here" in speeches, and on a sign on his desk, derives from the adoption of the phrase "passing the buck" as a metaphor for avoiding responsibility.

The use of other small disks as such markers led to the alternative term "button". Silver dollars were later used as markers and it has been suggested that this is the origin of "buck" as a slang term for "dollar," though by no means is there universal agreement on this subject.

## Dealer button

Today, a white plastic disc with the word "Dealer" is typically used as a dealer button in casinos and home games. Beyond marking the player in the dealer position, some games use the button to signify transitory details about the hand being played—for example, a game with a kill may use a button with the word "Kill" on only one side, which is turned up during a hand that the kill is in effect; or a dealer's choice game at a casino may use a placard with the name of the game selected by the player in the dealer position. Harrah's Entertainment has begun utilizing the space on the button for advertising; all dealer buttons at the 2005 World Series of Poker featured the logo for Degree antiperspirant.

## Other buttons

In a cash game in a casino, the chip tray may contain an assortment of plastic discs, or lammers, that the dealer may place in front of a player's seat under certain conditions. The following table lists some buttons and their significance:

Button	Use
<i>Missed blind</i>	Placed in front of a chip stack on the hand where the seat is due for one of the blinds, but no player is present. The player will have to make up the missed blinds to reenter the game, or else wait for the deal to rotate around the table until it his big blind again.
<i>Third man walking</i>	Marks a player that left his seat when two other players were already away from the table.

No player	Used to mark a chip stack where no player has been present for some duration of time. Typically each time a new dealer comes to the table (every half hour) another "No player" button will be added to an unattended stack. Depending on house rules, a chip stack that has collected two or three "No player" buttons may be eligible to have the chips picked up by the house, to free the seat for another player.
Reserved	May be placed in front of an empty seat, to hold the seat for a player that is known to be coming.
Seat change	These buttons are given to a player upon request, and signify that the player has first choice of seats, if the opportunity to move arises.

## See also

Poker jargon

**Categories:** Poker gameplay and terminology

## Cards speak

In the game of poker, the term *cards speak* ("for themselves") is used in two contexts:

First, it is used to describe a High-low split game without a declaration. That is, in a cards speak game, players all reveal their hands at the showdown, and whoever has the highest hand wins the high half of the pot and whoever has the lowest hand wins the low half.

The other context is as a house rule in casino poker rooms. "Cards speak" means that any verbal declaration as to the content of a player's hand is not binding. If Mary says she has no pair, but in fact she has a flush, her cards speak and her hand is viewed for its genuine value, that of a flush. Likewise if John says he has a flush, but in fact he does not, his hand is judged on its actual merits, not his verbal declaration. At the discretion of management, any player miscalling his hand may have that hand fouled, but this is not required.

The "cards speak" rule does not address the awarding of a pot, player responsibilities, or the one player to a hand rule. It merely means that verbal statements do not make a hand value. The cards do.

## See also

- Public cardroom rules (poker)

**Categories:** Poker gameplay and terminology

# Cheating in poker

## Contents

- 1 Minimal-skill methods
  - 1.1 Marked cards
- 2 Skilled methods
- 3 Collusion
- 4 See also
- 5 Notes

*Cheating in poker* is any behavior outside the rules intended to give an unfair advantage to one or more players.

Since poker has a wide variety of rules and procedures, hands are played fairly quickly, and numerous people are involved in games, the occurrence of cheating is common. Cheating can be done many ways, including collusion, sleight-of-hand such as bottom dealing or stacking the deck, or the use of physical objects such as marked cards or holdout devices.

Cheating occurs in both friendly games or casinos. Cheats may operate alone, but also may operate in teams or small groups.

Following is a list of terms used to categorize specific card cheats:

- card mechanic -- A card cheat who specializes in sleight-of-hand manipulation of cards, a card sharp.
- base dealer/second dealer -- Also called bottom dealer/second dealer is a cheat that specializes in bottom/second dealing.
- paper player -- A card cheat that exploits the use of marked cards.
- hand mucker -- A card cheat that specializes in switching cards.
- machine player -- A card cheat that uses mechanical holdouts.

## Minimal-skill methods

The easiest and most common types of cheating require no ability of manipulation, but rather merely the nerve. Such methods include shorting the pot, avoiding house fees and peeking at other player's cards. However, it is very difficult to prove because when confronted, the first time at least, the cheat often calls the cheating an honest mistake.

One minimal skill method that occurs in non-casino games happens when a player who has folded appoints himself the tender of the pot, stacking chips, counting them, and delivering them to the winning player. Check-chopping is when such a "helpful" player palms a chip. Odorless adhesive can be used for this purpose.

## Marked cards

Marked cards are printed or altered so that the cheater can know their value while only looking at the back. The ways of marking are too numerous to mention, but there are certain broad types. A common way of marking cards involves marks on a round design on the card so as to be read like a clock (an ace is marked at one o'clock and so on until the king which is not marked). Shading a card by putting it in the sun or scratching the surface with a razor are ways to mark an already printed deck.

Juice is a substance used to mark cards in a subtle way so as to avoid detection. Once trained, cheaters can read them from across the table.

Decks can be marked while playing using fingernails or by bending or crimping the cards in a position that the cheat can read from across the table.

## **Skilled methods**

A cheat may hand-muck, that is, switch their hand with one they have secretly hidden. This may also be done with a confederate.

A skilled cheat can deal the second card, the bottom card, the second from bottom card, and the middle card. The idea is to cull, or to find the cards one needs, place them at the bottom, top, or any other place the cheat wants, then false deal them to oneself or one's confederate.

One sign of false dealing could be when a dealer grips the deck with the index finger in front of it. This is referred to as the mechanic's grip. It not only allows better control of the cards, but provides cover as, showing the back of the top card, and without moving the hand holding the deck.

Even if a cheat deals himself a powerful hand, he may not win much money if every other player has nothing, so often the cheat will stack two hands, with one player getting a strong hand and the cheater getting an even stronger one.

One method of cheating that involves both great risk and great potential pay-off is the cold deck – so called because it has not been "warmed up" by play (and thus randomised). Such decks are usually pre-stacked, and are introduced either at the deal, after the real deck has been shuffled, or before the deal, where a card sharp will make a false shuffle using sleight of hand. The latter method may require collusion if the style of play or house rules call for a cut. The skill lies both in convincing other players that the shuffle is legitimate and in ensuring that other players receive hands that are good enough to entice them into play, but not too good to arouse suspicion.

## **Collusion**

A common form of cheating is with a partner or many partners, this is called collusion. Collusion is two or more players acting with a secret, common strategy. Some common forms of collusion are soft play, that is, failing to bet or raise in a situation that would normally merit it because you don't want to cost your partner money; whipsawing, where partners raise and reraise each other to trap players in between; dumping, where a cheater will



deliberately lose to a partner; and signalling that is, trading information between partners via signals of some sort.

Simple collusion in online poker is relatively easy and much more difficult to immediately spot if executed well. Cheaters can engage in telephone calls or instant messaging discussing their cards with no one looking at them. Sometimes one person can be using two or more computers and playing under different aliases. This gives him an advantage that's difficult to work against. However, online poker cardrooms keep records of every hand played, and collusion can often be detected by finding any of several detectable patterns.

Another concern in online poker is the use of bots. These are programs that play instead of a real human. Though their accuracy and their ability to actually win are in dispute, their use does violate the rules of the cardrooms so using them is by definition cheating.

In a poker tournament, when one player is all in and two other players are active in the pot, it is common for the two players with chips left to "check it down". Unless they explicitly agree to communicate an agreement about checking it down, this is not collusion.[1]

## See also

- Card counting
- Cheating in casinos

## Notes

1. ^ Is "checking it down" in a tournament implicit collusion?

**Categories:** Poker gameplay and terminology

## Check-raise

A *check-raise* in poker is a common deceptive play in which a player checks early in a betting round, hoping someone else will open. The player who checked then raises in the same round.

This might be done, for example, when the first player believes that an opponent has an inferior hand and will not call a direct bet, but that he may attempt to bluff, allowing the first player to win more money than he would by betting straightforwardly. The key point is that if no one else is keen to bet, then the most a player can raise (in a limit game) by is one single bet. If someone else bets first, he can raise, therefore increasing the value of the pot by two bets. In a no-limit game, there is no restriction to the size of one's bet and a check-raise is likely to be much larger than the second player's bet.

Of course, if no other player chooses to open, the betting will be checked around and the play will fail.

While it is an important part of poker strategy, this play is not allowed in some home games and certain small-stakes casino games. It is also frequently not allowed in the game of California lowball.

Check-raises can also be used as an intimidation technique over the course of a game. A player who has frequently been check-raised will be less likely to attempt to steal the pot.

## See also

- Poker jargon
- Poker strategy
  - Aggressive plays
  - Bluffing plays
  - Defense plays
  - Drawing plays
  - Isolation plays
  - Position plays
  - Protection plays
  - Slow plays
  - Stealing plays

**Categories:** Poker gameplay and terminology

## Chip race

A *chip race* is an event that takes place in poker tournaments, especially those with an escalating blinds (such as Texas hold 'em), in which chips of denominations that are no longer needed (as the current and upcoming blinds are more easily played with larger chip values) are removed from play. This has the effect of reducing the number of physical chips in front of any player, and makes it easier for the players to count their stacks and their bets.

In a typical chip race:

1. All players color up their lesser-valued chips into greater denominations. For example, if the blinds have increased to a level where \$5 chips are no longer needed to post blinds, each five \$5 chips will be exchanged for a \$25 chip. Players will temporarily keep any leftover chips that cannot be fully colored up to larger chips (less than 5 \$5 chips in the above example).
2. All leftover chips are counted, and equivalent chips in the larger denomination are presented to the table. Continuing the example, if there are 15 \$5 chips remaining among 6 players, 3 \$25 chips are prepared. In the event the remaining smaller chips do not add up to a whole larger chip, an extra larger chip should be added as long as the leftover smaller chips total more than half a single larger chip.

3. Each player with leftover chips in the smaller denomination will receive one card for each chip. The cards are typically dealt face up, starting from the small blind position for the upcoming hand. Each player due to receive cards will receive all of his cards before the next player, rather than a "traditional" card deal; the player on the little blind, for example, who is due to receive three cards for his three chips, will receive all three of his cards before the big blind receives any.

4. The larger chips are issued to the players with the highest single cards showing (poker hands do not count). No player is issued more than one chip. Ties (cards of the same rank) are broken by suit, using the same bridge (ascending alphabetical) order of the suits: Spades are highest, followed by Hearts, Diamonds, and Clubs. All remaining lesser-value chips are removed from play.

A chip race cannot eliminate a player from the game. In the event a player's last smaller-denomination chips are removed from play as part of the chip race, he automatically gets one colored up chip if one is available. Any leftover colored up chips go to the winner(s) of the chip race as described above.

**Categories:** Poker gameplay and terminology

## Chopping the blinds

In poker games with blinds, *chopping the blinds* is a custom that occurs when all active players fold to the blinds, who then remove their bets, ending the hand.

Chopping the blinds is a common occurrence in live ring games, whereas it is not allowed in tournament play, and is seldom, if ever, possible in play on the internet.

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- 1 Why players chop
- 2 Ethics of chopping
- 3 General etiquette
- 4 Reference

## Why players chop

Players generally chop for two reasons.

1. Many players do not enjoy playing heads-up, and would rather play multi-way pots. In this case, chopping is more of a social custom.

2. Chopping allows the blinds to avoid paying the rake for a hand that is unlikely to develop into a large pot. In this case, chopping is more of an economic decision.

In higher-limit games, players tend to be tighter, and it is more common for everyone to fold to the blinds. In this case, chopping would occur so frequently that it would be pointless. Furthermore, higher-limit games are much more likely to be short-handed. Finally, the rake in higher-limit games is usually much smaller in comparison to the size of the pot, and if a collection is taken instead of a rake, this removes the economic reason for chopping. For all these reasons, chopping is much more common in lower-limit games than in higher-limit games.

## **Ethics of chopping**

While chopping is a very common practice, some players feel it is antithetical to the nature of poker, especially in short-handed games. Mason Malmuth gives the following reasons why he believes chopping damages a poker game:

1. Chopping creates the illusion of partnerships.
2. Chopping takes the killer instinct out of the game.
3. Chopping allows a tight player to play ante-free.
4. Chopping creates confusion and hard feelings.
5. Chopping ruins short-handed games.

Many of these reasons overlap. For example, players who know each other tend to chop more often. This sometimes encourages these players to chop on future betting rounds, when everyone else has left the pot. This can be very confusing for other players, as it can give the illusion of partnership and collusion, even if such collusion is unintended.

## **General etiquette**

There are some general guidelines which have developed in regard to chopping the blinds, which are as follows:

1. The decision whether to chop or not should be made prior to the hand being dealt. Specifically, the decision to chop should not be based on the strength of one's cards. Otherwise, players would only chop their weak blind hands when it comes around to them.
2. Generally, a player should adhere to a consistent chopping policy for each game they play. For example, a common chopping policy which many players adopt for community card games such as holdem is to always chop if there are at least 6 players dealt in, and to never chop if there are fewer than 6 players dealt in. Another common policy is simply never to chop at all.

The important point is that a player's chopping policy should be made public and should be consistent whenever they play. If a player decides to deviate from his or her usual chopping policy for a single hand or a single session, this should be publicly announced. Players who constantly change their chopping policy from session to session, or worse, from hand to hand, in order to secure an advantage, are generally considered to be engaging in unethical behaviour.

## Reference

- Malmuth, Mason, *Poker Essays, Volume II*, Two Plus Two Publishing, ISBN 1-880685-15-9

**Categories:** Poker gameplay and terminology

## Closed

In the game of poker, a betting round is said to be *closed* if no player will have the right to raise in the round. Normally this occurs when a player calls, and the next player whose turn it is to act is the one who made the last raise, so he cannot raise further (this ends the betting round). The round can also said to be closed before it has actually ended if there are still players remaining to act, but they will not be entitled to raise either because the last raise was a sub-minimum all-in raise (see poker table stakes rules) or because the limit ("cap") on allowed raises has been reached.

The term is also used to describe a category of poker game in which no cards held by individual players are visible to any other player before the showdown. Most forms of draw poker are closed games (draw games with a rollout are an exception). Most forms of stud poker, in contrast, are open games, because some players' cards are dealt face up or are exposed during play (blind stud games are an exception). Most community card poker games like Texas hold 'em are considered closed as well, because the only cards exposed before showdown belong to everyone; the individual players' cards are never seen until showdown.

**Categories:** Poker gameplay and terminology

## Community card

In poker, a *community card* (also called a *shared card* or *window card*) is a card that is dealt face-up to the table (not to any particular player), and is shared by more than one player.

For example, if one individual player holds a hand of K-7-3-3, and there is a "K" as a community card, then that player's hand plays as Two pair (K-K-3-3-7) upon showdown. If another player with the same shared K held cards of A-Q-J-10, his hand upon showdown would be the ace-high Straight A-K-Q-J-10.

Often, several community cards are dealt to the table, shared by all players, and subject to variant-specific rules about how many, and which of the cards may be used in each player's hand. Such a set of community cards is often called a "board" or "widow" (though this latter term is inconsistent with its use in other card games). The board is usually dealt in a simple line, but some games may have elaborate layouts of community cards with special rules about what combinations can be used. For example, the game, Texas hold'em, ends with each player holding two cards in his individual hand, and a board of five community cards in a

simple line shared by everyone; each player then plays the best five-card hand, he can make out of the two in his hand, combined with the five he shares in any combination. In Omaha hold'em, game rules restrict players to using exactly three (no more and no fewer) of the five community cards, combined with exactly two of the four cards dealt to each player, to make a hand. In Tic-tac-toe, the board is a 3x3 array of nine cards, and players must use exactly three cards from a row, column, or diagonal of the board.

Many Community card games are strategically interesting because shared cards can give players hands of similar value, making skilled play, important. For example, when the five community cards on a Texas hold'em board include four of one suit, any player with a card of that suit in his hand can play a Flush (but the one with the highest-ranking card of that suit is likely to have the best flush and win).

**Categories:** Poker gameplay and terminology

## Counterfeit

In community card poker, a player or hand is said to be *counterfeited* when a community card does not change the value of his hand, but makes it more likely that an opponent will beat it. This occurs primarily in Omaha hold 'em hi-lo split and sometimes in Texas hold 'em. Counterfeiting also occurs in the Badugi variant of draw poker.

### Contents

- 1 Omaha hold 'em
- 2 Texas hold 'em
- 3 Badugi
- 4 Notes

## Omaha hold 'em

The more common occurrence of counterfeiting in Omaha is when a person's best possible low hand, called the "nut low", is counterfeited. As an example, say Alice has  $A`3c\ Jf\ Qf$  while Bob holds  $Ac\ 2f\ 9f\ J`$  and Carol holds  $9e\ Te\ Ke\ Ae$ . If the flop comes  $6e\ 7e\ 8e$ , Carol has a lock on the high hand with her 10-high straight flush, but Alice and Bob are still competing for the low half of the pot. Bob holds a  $8-7-6-2-A$ , ahead of Alice's  $8-7-6-3-A$ . In fact, Bob currently holds the nut low hand; no one can have a better low hand.

However, if the turn card is  $2c$ , Alice and Bob's fortunes have changed. Alice now has the nut-low of  $7-6-3-2-A$ , while Bob must still play the  $A-2$  from his hand for a low of  $8-7-6-2-A$ . The turn card did not make Bob's hand worse, but it did make Alice's hand better.[1]

On the other hand, on a flop of  $8-7-6$ , a hand containing  $A-2-3-4$  is considered counterfeit-proof, because it currently is the nut low ( $8-7-6-2-A$ ), and even if an  $A$  or a  $2$  arrives on the

turn, it will remain the nut low (7-6-3-2-A). A player with this type of protection can be bolder in betting.

## Texas hold 'em

Counterfeiting in Texas hold 'em is similar to Omaha, in that hands do not change value, but normally Texas hold 'em counterfeiting is less likely to cause a player to lose an entire pot. On a flop of *Q-J-T*, a player holding A-K will have flopped an ace-high Broadway straight. If the turn card comes a king, the player with A-K will still have the same straight, but now so will a player with A-7, making a tie. The A-K player's hand didn't get worse in rank, but it becomes less likely to win the entire pot. Counterfeiting in Texas hold 'em more often leads to ties, like in the example above, but in some cases it will lead to losses. For example, if the flop is *J-T-9*, and the turn a queen, a player who held K-Q will be counterfeited and able to lose to a player with A-K.

## Badugi

If a player holds a hand such as A244 (all different suits), the hand value is really A24 as a player can only use one of the cards that is paired. This is known as a three-card hand. Similarly a hand such as A222 would only hold a final value of A2, a two-card hand, as the other 2 cards are counterfeited. A three-card hand beats any 2-card hand.[2]

## Notes

1. ^ Counterfeit definition
2. ^ Badugi hand values

**Categories:** Poker gameplay and terminology

## Curse of Scotland

*The curse of Scotland*, also known as the *Scourge of Scotland*, is a term used in poker, bridge and various other card games for the nine of diamonds. The exact origins of the term are unknown but several theories exist.

The most common myth is that the term arose after the Massacre of Glencoe due to a resemblance in the playing card and Sir John Dalrymple coat of arms. Another myth is that the order for no quarter at the Battle of Culloden written on a nine of diamonds by the Duke of Cumberland.

Other less popular theories include the term deriving from a tax levied to pay for nine diamonds stolen from the crown of Scotland or that the term is a mispronunciation of "The

Cross of Scotland" due to a resemblance in the patterns of St. Andrew's Saltire and the playing card.

### See also

- List of slang names for poker hands

**Categories:** Poker gameplay and terminology

## Dead money

In poker, *dead money* is the amount of money in the pot other than the equal amounts bet by active remaining players in that pot. Examples of dead money include money contributed to the pot by players who have folded, a dead blind posted by a player returning to a game after missing blinds, or an odd chip left in the pot from a previous deal. For example, 8 players each ante \$1, one player opens for \$2, and gets two callers, making the pot total \$14. Three players are now in the pot having contributed \$3 each, for \$9 "live" money; the remaining \$5 (representing the antes of the players who folded) is dead money.

The amount of dead money in a pot affects the pot odds of plays or rules of thumb that are based on the number of players. For example, a common rule of thumb used by many Omaha players is that one should raise with a nut low hand on the last round only if there are four players in the pot, and just call if there are only three. But if there is considerable dead money in the pot, this changes the odds to favor raising even with only three players.

The term "dead money" is also used in a derogatory sense to refer to money put in the pot by players who are still legally eligible to win it, but who are unlikely to do so because they are unskilled. This can also be applied to the player himself: Let's invite John every week; he's dead money. The term "dead money" also applies in tournaments, when a player enters who has virtually no chance of winning.

### See also

- Poker jargon

**Categories:** Poker gameplay and terminology

## Declaration



There are several actions in poker called *declaration*, in which a player formally expresses his intent to take some action (which he is then required to perform at a later point).

## **Declaring target in a split pot**

The most common is the act of declaring "high", "low", or "both ways" (sometimes "swing") in a high-low split game. This is common among home games, while high-low split games in casinos are usually played cards speak.

In a *simultaneous declaration*, each player must declare his intent at the same time, without knowing what any of his opponents intend. This is often done by taking chips under the table, hiding them in one's hand, and then all players opening their hands at once after everyone has chosen. For example, no chips in hand means that the player declares "high", one chip means "low" and two chips means "swing". In a *consecutive declaration*, each player verbally declares in turn, and later players can therefore use that information to make their decision.

The usual rule in split-pot games with a declaration is that half of the pot is awarded to the highest hand among those who declared "high", and half is awarded to the lowest hand among those who declared "low". If no player declared in one direction, then that half is not split from the pot. That is, if all players declared low and no player declared high, then the low hand wins the whole pot instead of just half. If a player declares "both ways", he must have both the highest hand and the lowest hand clearly, with no losses or ties in either direction, to win the whole pot, otherwise he wins nothing (even if he would otherwise have won half).

## **Declaring number of cards to draw**

Another use of the term "declaration" is the act of declaring how many cards a player intends to draw in a draw poker game. It's common for all players to declare their draw intentions before any actual cards are dealt, after which all replacements are dealt at once. This protects the players against marked or accidentally exposed cards.

## **Other declarations**

Other uses include declaring the intended amount of a bet or raise ("A verbal declaration in turn is binding" is a common rule in casinos), declaring the value of a hand upon showdown and declaring how one chooses to receive a card in a choose-before roll your own game. The rules of each of these games may specify how a player is held accountable for these declarations.

**Categories:** Poker gameplay and terminology

## **Defense**

In poker, certain aggression plays like steals can be very effective; players must occasionally reply to them with defensive plays with hands they might not otherwise play. If, for example, an opponent to a player's right frequently steals when the player has posted a blind, the player can be reasonably sure that the opponent is often doing so with inferior hands (otherwise he wouldn't be doing it so often), the player can likely defend his blind (call or raise back) with more hands than he might otherwise.

## See also

- Poker jargon
- Poker strategy
  - Aggressive plays
  - Bluffing plays
  - Check-raise plays
  - Drawing plays
  - Isolation plays
  - Position plays
  - Protection plays
  - Slow plays
  - Stealing plays

**Categories:** Poker gameplay and terminology

## Domination

Poker hand A is said to *dominate* poker hand B if poker hand B has 3 or fewer outs (cards to catch) that would improve it enough to win. Informally, domination is sometimes used to refer to any situation where one hand is highly likely to beat another. The term *drawing dead* is used to denote a domination situation with 0 outs.

In hold'em poker variations, domination usually refers to one of three situations involving the hole cards:

- Higher pair dominating a lower pair (e.g., QQ vs. 99): Barring an unlikely straight or flush possibility, the underdog must catch 1 of 2 remaining nines (improving to 999) to beat the QQ.
- A pair dominating higher than at least of one the cards in a non-paired hand (e.g. JJ vs. A8, AJ or 87)
- Sharing a card, a higher kicker dominating a lower kicker (e.g., AJ vs. KJ or AJ vs. A9): Barring an unlikely straight or flush possibility, the underdog must catch 1 of 3 remaining cards of his kicker rank (and not catch 1 of the 3 remaining cards of the opponent's kicker rank).

The following table shows examples of common domination situations. The percentages represent preflop pot equity in a heads up confrontation (percentage of winning plus half the percentage of splitting the pot).

vs.	<b>Af Je</b>	<b>9f 9e</b>	<b>8f 7e</b>
J` Jc	<b>69.5</b>	<b>81.0</b>	<b>82.2</b>
A`	<b>74.0</b>		
Kc	<small>44.3</small>	<small>61.9</small>	

The green percentages denote the three common domination situations noted above. In contrast, the brown percentages denote non-domination situations. After the flop domination becomes more complex and there are many domination situations which don't deserve exhaustive treatment however most commonly domination is maintained:

- A higher hand vs. a lower (AJ vs. A9 when a A flops with no 9 or J)
- A higher pair vs. a lower (QQ vs. 99 where no 9 or Q flops)

However a situation can emerge where domination is lost. This can either be a result of :

- the weaker hand adding addition outs (example: JJ vs. A8 where an 8 flops with no J or A)
- the weaker hand becoming stronger but not dominating (example JJ vs 87 with a flop of A-8-7, or 9f 9e vs. 6` 5` with a flop of 4` 3` 5e)
- The weaker hand can become the dominating hand (example: QQ vs 99 where a 9 but not a Q flops, or J` Jc vs. 8c 7c on a flop of 6f 5f 4f). The term *reverse domination* is applied to the 3rd case of preflop domination under one of these reversals (example: AJ vs A9 when a 9 but not a J flops, regardless of whether an A flops).

## See also

- Poker probability
- Poker probability (Texas hold 'em)

**Categories:** Poker gameplay and terminology

# Draw

## Contents

- 1 Outs
- 2 Types of draws
  - 2.1 Flush draw
  - 2.2 Outside straight draw
  - 2.3 Inside straight draw
  - 2.4 Double inside straight draw
  - 2.5 Other draws
  - 2.6 Backdoor draw
- 3 See also

A poker player is *drawing* if he has a hand that is incomplete and needs further cards to become valuable. The hand itself is called a *draw*. For example, in seven-card stud, if a player's four of the first five cards are all spades, but the hand is otherwise weak, he is drawing for a flush. If an opponent has a made hand that will beat the player's potential flush, then he is drawing dead, that is, even if he make his flush, he will lose. In contrast, a made hand already has value and does not need additional cards to improve.

## Outs

An unseen card that would improve a drawing hand to a likely winner is an out. Playing a drawing hand has a positive expectation if the probability of catching an out is greater than the pot odds offered by the pot.

The probability of catching an out with one card to come is:

$$\text{Probability} = \text{NumberOfOuts} / \text{NumberOfUnseenCards}$$

The probability of catching at least one out with two cards to come is:

$$\text{Probability} = 1 - (\text{NumberOfNonOuts} / \text{NumberOfUnseenCards}) * ((\text{NumberOfNonOuts} - 1) / (\text{NumberOfUnseenCards} - 1))$$

A *dead out* is a card that would normally be considered an out for a particular drawing hand, but should be excluded when calculating the probability of catching an out. Outs can be dead for two reasons:

- A dead out may work to improve an opponent's hand to a superior hand. For example, if Ted has a spade flush draw and Alice has an outside straight draw, any spades that complete Alice's straight are dead outs because they would also give Ted a flush.
- A dead out may have already been seen. In some game variations such as stud poker, some of the cards held by each player are seen by all players.

## Types of draws

### Flush draw

A *flush draw*, or *four flush*, is a hand with four cards of the same suit that may improve to a flush. For example, Kc-9c-8c-5c-x. A flush draw has nine outs (thirteen cards of the suit less the four already in the hand).

### Outside straight draw

An *outside straight draw*, or *open-ended straight draw*, is a hand with four of the five needed cards in sequence (and could be completed on either end) that may improve to a straight. For example, x-9-8-7-6-x. An outside straight draw has eight outs (four cards to complete the top of the straight and four cards to complete the bottom of the straight). Straight draws including an ace are not outside straight draws, because the straight can only be completed on one end (has four outs).

### Inside straight draw

An *inside straight draw*, or *gutshot draw* or *belly buster draw*, is a hand with four of the five cards need for a straight, but missing one in the middle. For example, 9-x-7-6-5. An inside straight draw has four outs (four cards to fill the missing internal rank). Because straight draws including an ace only have four outs, they are also considered inside straight draws. For example, A-K-Q-J-x or A-2-3-4-x. The probability of catching an out for an inside straight draw is roughly half that of catching an out for an outside straight draw.

### Double inside straight draw

A *double inside straight draw*, or *double gutshot draw* or *double belly buster draw*, is a hand with three of the five cards need for a straight in sequence, plus two additional cards one gap from each end. For example, 9-x-7-6-5-x-3. A double inside straight draw has eight outs (four cards to fill either missing internal rank). Double inside straights only occur in games with seven or more cards. The probability of catching an out for double inside straight draw is the same as for an outside straight draw.

## Other draws

Sometimes a made hand needs to draw to a better hand. For example, if a player has two pair or three of a kind, but an opponent has a straight or flush, to win the player must draw an out to improve to a full house. There are a multitude of potential situations where one hand needs to improve to beat another, but the expected value of most drawing plays can be calculated by counting outs, computing the probability of winning, and comparing the probability of winning to the pot odds.

## Backdoor draw

A *backdoor draw*, or *runner-runner draw*, is a drawing hand that needs to catch two outs to win. For example, a hand with three cards of the same suit has a backdoor flush draw because it needs two more cards of the suit. The probability of catching two outs with two cards to come is:

$$\text{Probability} = \text{NumberOfOuts} / \text{NumberOfUnseenCards} * [(\text{NumberOfOuts} - 1) / (\text{NumberOfUnseenCards} - 1)]$$

For example, if after the flop in Texas hold 'em, a player a backdoor flush draw (e.g., three spades), the probability of catching two outs on the turn and river is  $(9 / 47) * (8 / 46) = 3\%$ .

## See also

- Poker jargon
- Poker strategy
  - Pot odds
  - Aggressive plays
  - Bluffing plays
  - Check-raise plays
  - Defense plays
  - Isolation plays
  - Position plays
  - Protection plays
  - Slow plays
  - Stealing plays

**Categories:** Poker gameplay and terminology

## Flop

In poker, the *flop* refers to the dealing of the first three face-up cards to the board, or to those three cards themselves, in community card poker variants, particularly Texas hold 'em and Omaha hold 'em.

The three cards are dealt simultaneously following the completion of the opening round of betting. After the flop, there is a second round of betting, which is followed by the dealing of a fourth, or *turn*, card; and a fifth, or *river*, card. The three cards are often dealt face-down in a stack, then the stack is turned face-up and quickly slid to one side to expose all three cards, such that a player cannot be seen to be reacting to one particular card.

After the flop, a player will have seen five of the seven cards that will make up his hand at the showdown. While the flop marks the point at which players have significant information about the value of their hand, three more betting rounds are still to be played out.

### See also

- Poker jargon
- Turn (poker)
- River (poker)

**Categories:** Poker gameplay and terminology

## Freeroll

A *freeroll* is a situation that arises during poker play (usually when only two players remain) before the last card has been dealt, in which one player is guaranteed to at least split the pot with his opponent no matter what the final cards are, but where there is some chance he can win the whole pot if certain final cards are dealt. This most commonly occurs in a high-low split game where one player knows that he has a guaranteed low hand made, his opponent cannot make a better low no matter what the last card is, but the player who is low might possibly catch a lucky card that gives him a straight or flush, winning high as well.

Here's an example from Texas hold'em: Angie holds *Kc 10c*, and Burt holds *Ke 10e*. After round three, the board is *Ac Q` Je 4c*. Both players have an ace-high straight, the current nut hand, and so they will most likely split the pot. But if the final card happens to be a club, Burt's straight will lose to Angie's flush. There is no other possible final card that will give Burt more than a split; only Angie can improve, so she is freerolling Burt.

If a player knows he has a freeroll, he can raise the pot with impunity, and often a less-skilled opponent with a good hand who does not realize that he is on the wrong end of the freeroll will continue to put in raises with no possible hope of gain.

In Hold'em, it is possible to know you have a freeroll without seeing your opponents cards. After the turn if the board has two aces and two kings all of separate suits, and you hold AK, you are guaranteed a minimum of a split. However, there is a possibility of you getting the nuts, with a guaranteed winning hand, if an Ace or a King hits on the river.

The term is also used to describe a tournament with no entry fee.

**Categories:** Poker gameplay and terminology

## Fundamental theorem of poker

The *fundamental theorem of poker* is a principle first articulated by David Sklansky that he believes expresses the essential nature of poker as a game of decision-making in the face of incomplete information.

Every time you play a hand differently from the way you would have played it if you could see all your opponents' cards, they gain; and every time you play your hand the same way you would have played it if you could see all their cards, they lose. Conversely, every time opponents play their hands differently from the way they would have if they could see all your cards, you gain; and every time they play their hands the same way they would have played if they could see all your cards, you lose.

The Fundamental Theorem is stated in common language, but its formulation is based on mathematical reasoning. Each decision that is made in poker can be analyzed in terms of the concept of expected value. The expected value expresses the average payoff of a decision if the decision is made a large number of times. The correct decision to make in a given situation is the decision that has the largest expected value. (Although sometimes it is correct not to choose this decision for the larger goal of long-term deception.) If you could see all your opponents' cards, you would always be able to calculate the correct decision with mathematical certainty. (This is certainly true heads-up, but is not always true in multi-way pots.) The less you deviate from these correct decisions, the better your expected long-term results. This is the mathematical expression of the Fundamental Theorem.

### An example

Here is an example that illustrates how the Fundamental Theorem is applied. (This example assumes a familiarity with the basic rules and terminology of Texas hold 'em.) Suppose you are playing limit holdem and are dealt 9c 9` under the gun before the flop. You call, and everyone folds to the big blind who checks. The flop comes Ac Kf 10f, and the big blind bets.

You now have a decision to make based upon incomplete information. In this particular circumstance, the correct decision is almost certainly to fold. There are too many turn and river cards that could kill your hand. Even if the big blind does not have an A or a K, there are 3 cards to a straight and 2 cards to a flush on the flop, and she could easily be on a straight



or flush draw. You are essentially drawing to 2 outs (another 9), and even if you catch one of these outs, your set may not hold up.

However, suppose you knew (with 100% certainty) the big blind held 8f 7f. In this case, it would be correct to raise. Even though the big blind would still be getting the correct pot odds to call, the best decision is to raise. (Calling would be giving the big blind infinite pot odds, and this decision makes less money in the long run than raising.) Therefore, by folding (or even calling), you have played your hand differently from the way you would have played it if you could see your opponent's cards, and so by the Fundamental Theorem of Poker, she has gained. You have made a "mistake", in the sense that you have played differently from the way you would have played if you knew the big blind held 8f 7f, even though this "mistake" is almost certainly the best decision given the incomplete information available to you.

This example also illustrates that one of the most important goals in poker is to induce your opponents to make mistakes. In this particular hand, the big blind has practiced deception by employing a semi-bluff—she has bet a hand, hoping you will fold, but she still has outs even if you call or raise. She has induced you to make a mistake.

## Multi-way pots and implicit collusion

The Fundamental Theorem of Poker applies to all heads-up decisions, but it does not apply to all multi-way decisions. This is because each opponent of a player can make an incorrect decision, but the "collective decision" of all the opponents works against the player.

This type of situation occurs mostly in games with multi-way pots, when a player has a strong hand, but several opponents are chasing with draws or other weaker hands. Sometimes such a situation is referred to as *implicit collusion*. Experts disagree on the prevalence of implicit collusion in particular games, as well as the extent to which implicit collusion might be unethical.

The Fundamental Theorem of Poker is simply expressed and appears axiomatic, yet its proper application to the countless varieties of circumstances that a poker player may face requires a great deal of knowledge, skill, and experience.

- **See also** Morton's theorem

**Categories:** Poker gameplay and terminology

## Hand-for-hand

*Hand-for-hand* situations in poker arise exclusively during tournaments at times in which multiple tables are in play and there must be a definitive player ranking.

In poker tournaments, the order of elimination is the means of determining player rank. Because rank directly amounts to a particular payout, at times during a tournament play is slowed down to ensure accurate measurement of player elimination. Hand-for-hand play

requires all hands be dealt at the same time. When a table has finished a hand, the dealer must wait until all tables have finished to commence the next hand.

Note that this does not affect how a particular table 'plays' their hands; only the deals must be simultaneous.

Hand-for-hand play usually starts when the next player (or players) to leave the tournament will be the last place at a given payout. Most poker tournaments, for simplicity, group payouts based upon rank below the final table. Twentieth to eighteenth may be paid the same amount, and seventeenth through fourteenth may be paid a higher amount, for example. In this scenario, hand-for-hand will most likely commence with 21 and 18 players remaining. At the 2005 World Series of Poker Main Event, day 4 started in hand-for-hand, with eliminations required until 561 players remained.

Hand-for-hand play eliminates ties, except for one, exceptionally rare situation. If multiple players go all-in during one hand run hand-for-hand, assuming all players all-in are eliminated, the players are ranked according to chip count, the amount the player had in front of them at the beginning of the hand. Players are only awarded a tied rank if they have identical pre-hand chip counts, in which case the prizes are customarily split by both players. In some situations, pre-hand chip counts may not be available, in which case, all players eliminated on a given hand are considered to have tied for the same rank. For example, at the 2004 World Series of Poker Main Event, where 225 players were scheduled to be in-the-money, hand-for-hand play was held with 226 players. Two players were eliminated on the same hand, and were considered tied for 225th; they initially split the \$10,000 prize before the casino elected to give them each \$10,000.

Technically, the final table is also hand-for-hand, but as there is no other table to delay play, all hands are dealt once the previous hand has ended.

**Categories:** Poker gameplay and terminology

## High card by suit

*High card by suit* refers to assigning relative values to playing cards of equal rank based on their suit.

Most poker games do not rank suits; the ace of spades is just as good as the ace of clubs. However, small issues (such as deciding who deals first) are sometimes resolved by dealing one card to each player. If two players draw cards of the same rank, one way to break the tie is to use an arbitrary hierarchy of suits.

No standard ranking of suits exists for all poker games. Even within a particular poker variant, the order of suits differs by location. (For example, the ranking most commonly used in the United States is not the one typically used in Italy.) Two common conventions are:

- Alternating colors: *diamonds* (lowest), followed by *clubs*, *hearts*, and *spades* (highest). (This ranking is also used in the Chinese card game Big Two or Choi Dai Di).
- Alphabetical order: *clubs* (lowest), followed by *diamonds*, *hearts*, and *spades* (highest). (This ranking is also used in the game of bridge). This mnemonic

rank is consistent with the suits representation of the four major divisions of medieval society, Spades (nobility, highest), Hearts (clergy), Diamonds (merchants), and Clubs (peasants).

Cards are always compared by rank first, and only then by suit. For example, using the "alphabetical order" ranking, the ace of clubs ranks higher than any king, but lower than the ace of diamonds). High card by suit is never used to break ties between poker hands, but can be used in the following situations, as well as various others, based upon the circumstances of the particular game:

- Randomly selecting a player or players.

To randomly select a player to deal, to choose the game, to move to another table, or for other reasons, deal each player one card and the player with high card by suit is selected. Multiple players can be selected this way.

- Assigning the bring-in.

In games such as Seven-card stud, where the player with the lowest-ranking face-up card is required to open the first betting round for a minimal amount, ties can be broken by suit.

- Awarding odd chips in a split pot.

In High-low split games, or when two players' hands tie, the pot must be split evenly between them. When there is an odd amount of money in the pot that can't be split evenly, the odd low-denomination chip can be given to the player whose hand contains the high card by suit. (This solution is not necessary in games with blinds, in which case the odd chip between high and low is awarded to the high hand, and the odd chip between a split high or split low is awarded to the first player following the dealer button.)

- Breaking ties in a chip race

During poker tournaments, a chip race is used to "color up" large numbers of smaller-denomination chips, and a modified deal is used to assign leftover chips. Ties in the deal are broken by suit.

#### **See also:**

- Poker
- Poker hand ranking
- 

**Categories:** Poker gameplay and terminology

## **High-low split**

In traditional poker games, the player with the best traditional hand wins the whole pot. Lowball variations award the pot to the lowest hand, by any of several methods (see Low hand (poker)). *High-low split* games are those in which the pot is divided between the player with the best traditional hand (called the high hand) and the player with the low hand.

There are two common methods for playing high-low split games, called declaration and cards speak. In a declaration game, each player declares (either verbally or using markers such as chips) whether he wishes to contest for the high hand or the low hand. The lowest

hand among those who declared low wins that half of the pot, and the highest hand among those who declared high wins that half (for further details, see declaration). In a cards speak game, all players simply reveal their cards at showdown and the hands are evaluated by all players; high hand wins half of the pot and low hand wins the other half.

Especially when using the ace-to-five low method, it is possible for one player to have both the low hand and the high hand, and therefore win all of the pot (called "scooping," "hogging" the pot, or "going pig"). In the event more than one player ties for either high or low, the pot can be further split into quarters or smaller fractions. For example, if one player has the high hand on showdown, and two other players tie for the best low hand, the high hand wins half of the pot and each low hand wins only a quarter of the pot.

It is common, especially in cards speak games, to require a certain hand value or better to win the low half of the pot, called a *qualifier*. For example in an "eight or better to qualify low" game, a player with an eight-high hand (or better low such as seven-high) is entitled to win the low half of the pot (assuming his hand defeats all other low hands), but a player with a 10-high or 9-high hand cannot win, even if his hand is the lowest. In this case, the high hand wins the entire pot. There is generally no qualifier to win high, although one common variant is *any pair/no pair*, where a hand of at least a pair is required to win high and any hand with no pair is required to win low.

In high-low split games where each player is dealt more than five cards, each player chooses five of his cards to play as his high hand, and/or five of his cards to play as his low hand. The sets may overlap: for example, in seven-card stud played high-low split, a player dealt 7-7-6-4-4-3-2 can play a high hand of 7-7-4-4-6 (two pair, sevens and fours) and a low hand of 7-6-4-3-2 (seven-high).

Note that bluffs can be especially powerful in high-low split games, because a player making a successful bluff wins the whole pot rather than having to share it. This fact also makes bluffs less likely to succeed.

**Categories:** Poker gameplay and terminology

## Hole cam

In poker, a *hole cam* (or pocket cam) is a camera that displays a player's face-down cards (known as "hole cards") to television viewers. It was patented by Henry Orenstein in 1995.

The hole cam became popular when the Late Night Poker program first began using it in televised tournaments. Cameras were also used in the Poker Million prior to gaining further popularity after the World Poker Tour began airing on the Travel Channel in 2003 and the ESPN broadcasts of the 2003 World Series of Poker.

**Categories:** Poker | Poker gameplay and terminology

## Isolation

In poker, an *isolation* play is usually a raise designed to encourage one or more players to fold, specifically for the purpose of making the hand a one-on-one contest with a specific opponent. For example, if an opponent raises and a player suspects he is bluffing, a player may reraise to pressure other opponents to fold, with the aim of getting heads up.

Isolation plays are most common against overly-aggressive players ("maniacs") who frequently play inferior hands, or with players who may have a drawing hand. Isolation plays are also common in tournaments to isolate a player who is "short stacked", that is, one who is in imminent danger of elimination, and so is likely to be playing aggressively out of desperation.

## See also

- Poker jargon
- Poker strategy
  - Aggressive plays
  - Bluffing plays
  - Check-raise plays
  - Defense plays
  - Drawing plays
  - Position plays
  - Protection plays
  - Slow plays
  - Stealing plays

**Categories:** Poker gameplay and terminology

## Kicker

A *kicker*, also called a *side card*, is a card in a poker hand that does not itself take part in determining the rank of the hand, but that may be used to break ties between hands of the same rank. For example, the hand *Q-Q-10-5-2* is ranked as a pair of queens. The *10*, *5*, and *2* are kickers. This hand would defeat any hand with no pair, or with a lower-ranking pair, and lose to any higher-ranking hand. But the kickers can be used to break ties between other hands that also have a pair of queens. For example, *Q-Q-K-3-2* would win (because its *K* kicker outranks the *10*), but *Q-Q-10-4-3* would lose (because its *4* is outranked by the *5*).

The term is also used in draw poker to denote an unmatched card (often an ace) retained by a player during the draw in the hope that either it will be paired on the draw, or else play as a kicker (in the first sense) on the showdown. A kicker may also be retained in order to deceive an opponent, for example, to represent a three-of-a-kind when the player has only a pair.

Kickers take on special importance in Texas hold 'em, because a common winning hand is one card in a player's hand matched with a card on the board, while the player's second

card acts as a kicker. For example, if one player holds *A-Q*, a second player holds *A-10*, and the board is *A-J-8-5-3*, the player with the *Q* kicker wins because *A-A-Q-J-8* defeats *A-A-J-10-8*. If the board, however, were *A-K-5-9-5*, the players would tie, because both would play the hand *A-A-5-5-K*; in this case it is said that the players' kickers "don't play", or that the "kicker on the board plays". In this case, there would be a split pot.

**Categories:** Poker gameplay and terminology

## Morton's theorem

*Morton's theorem* is a poker principle articulated by Andy Morton. It states that in multiway pots, a player's expectation may be maximized by an opponent making a correct decision.

The most common application of Morton's theorem occurs when one player holds the best hand, but there are two or more opponents on draws. In this case, the player with the best hand might make more money in the long run when an opponent folds to a bet, even if that opponent is folding correctly and would be making a personal mistake to call the bet. This type of situation is sometimes referred to as implicit collusion.

Morton's theorem should be contrasted with the fundamental theorem of poker, which states that a player wants his opponents to make decisions which minimize their own expectation. The discrepancy between the two "theorems" occurs because of the presence of more than one opponent. Whereas the fundamental theorem always applies heads-up (one opponent), it does not always apply in multiway pots. The scope of Morton's theorem in multiway situations is a subject of controversy. For example, Morton himself expresses the belief that the fundamental theorem rarely applies to multiway situations.

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- 1 An example
- 2 Analysis
- 3 See also

### An example

The following example is credited to Morton, who first posted on [rec.gambling.poker](http://rec.gambling.poker). (Some numbers have been changed to allow for complete information, see below.)

Suppose in limit holdem a player holds *AfKc* and the flop is *K`9e3e*, giving the player top pair with best kicker. When the betting on the flop is complete, the player has two opponents remaining, one of whom he knows has the nut flush draw (for example, *AeTe*, giving him 9 outs) and one of whom the player believes holds second pair with random kicker (for example *Qc9c*, 4 outs), leaving the player with all the remaining cards in the deck as his outs.

The turn card is an apparent blank (for example 6f) and the pot size at that point is P, expressed in big bets.

When the player bets the turn, opponent A, holding the flush draw, is sure to call and is almost certainly getting the correct pot odds to call the player's bet (note that it would not be true in a no limit game). Once opponent A calls, opponent B must decide whether to call or fold. To figure out which action opponent B should choose, calculate his expectation in each case. This depends on the number of cards among the remaining 42 that will give him the best hand, and the size of the pot when he is deciding. (Here, as in arguments involving the fundamental theorem, we assume that each player has complete information of their opponents' cards.)

$E(\text{opponent B} \mid \text{folding}) = 0$

Opponent B doesn't win or lose anything by folding. When calling, he wins the pot  $4/42$  of the time, and loses one big bet the remainder of the time. Setting these two expectations equal to each other and solving for P lets us determine the pot-size at which he is indifferent to calling or folding:

When the pot is larger than this, opponent B should continue; otherwise, it's in B's best interest to fold.

To figure out which action on opponent B's part the player would prefer, calculate the player's expectation the same way

The player's expectation depends in each case on the size of the pot (in other words, the pot odds B is getting when considering his call.) Setting these two equal lets us calculate the pot-size P where the player is indifferent whether B calls or folds:

$E(\text{the player} \mid \text{B calls}) = E(\text{the player} \mid \text{B folds})$

**$\Rightarrow P = 5.25 \text{ big bets}$**

When the pot is smaller than this, the player profits when opponent B is chasing, but when the pot is larger than this, the player's expectation is higher when B folds instead of chasing.

In this case, there is a range of pot-sizes where it's correct for B to fold, and the player makes more money when he does so than when he incorrectly chases. This can be seen graphically below

```
| B SHOULD FOLD | B SHOULD CALL | v | WANTS B TO CALL | WANTS B TO FOLD | v +---+--
+-----+-----+-----+-----+-----> pot-size P in big bets 0 1 2 3 4 5 6 7 8 XXXXXXXXXXXX ^
"PARADOXICAL"                                                                    REGION"
```

The range of pot sizes marked with the X's is where the player wants his opponent to fold correctly, because the player loses expectation when he calls incorrectly.

## Analysis

In essence, in the above example, when opponent B calls in the "paradoxical region", he is paying too high a price for his weak draw, but the player is no longer the sole benefactor of that high price — opponent A is now taking B's money those times that A makes his flush draw. Compared to the case where the player is heads up with opponent B, the player still stands the risk of losing the whole pot, but are no longer getting 100% of the compensation from B's loose calls.

It is the existence of this middle region of pot sizes, where a player wants at least some of his opponents to fold correctly, that explains the standard poker strategy of thinning the field as much as possible when a player thinks he holds the best hand. Even opponents with incorrect draws cost a player money when they call his bets, because part of their calls end up in the stacks of other opponents drawing against you.

Because the player is losing expectation from B's call, it follows that the aggregate of all other opponents (i.e., A and B) must be gaining from B's call. In other words, if A and B were to meet in the parking lot after the game and split their profits, they would have been colluding against the player. This is sometimes referred to as implicit collusion. It should be contrasted with what is sometimes called schooling. Schooling occurs when many opponents correctly call against a player with the best hand, whereas implicit collusion occurs when an opponent incorrectly calls against a player with the best hand.

One conclusion of Morton's theorem is that, for example, in a loose hold'em game, the value of suited hands goes up, because they are precisely the types of hands which will benefit from implicit collusion.

## See also

- Fundamental theorem of poker
- Poker strategy

**Categories:** Poker gameplay and terminology

## One player to a hand

In poker, the *one player to a hand* rule is an important principle of fair play, and universal rule of casino play. It states that all game decisions about the play of each hand must be made by one player without assistance. This means, for example, that a player may not ask for advice from any other player or non-player during the play of the hand, nor should anyone offer such advice unsolicited. The phrase is often used as a warning to players making what might be perceived as minor violations, such as commenting upon other players' possible hands: Frank: Gina, you think your **flush** is higher than Nick's? Nick: Hey, one player to a hand, Frank.



Note that reading properly exposed hands of other players at showdown is not a violation of this rule, since no further decisions can be made. See Cards speak.

## See also

- Public cardroom rules (poker)

**Categories:** Poker gameplay and terminology

## Open-ended

*Open-ended* refers to a situation in poker where the player has four of five cards needed for a straight that can be completed at either end. For example, a player with 3e 4e 5c 6` is open-ended, because a deuce or a seven would give the player a straight. This situation is also called an *outside* straight draw, as the cards needed to complete the straight are cards which are on the outside of the current hand, as opposed to an *inside* draw such as 2f 3` 5` 6e, which can only be completed by a four.

The term originated with draw poker, and is really meaningful only in that game where the distinction between an outside and inside draw is critical--outside draws are sometimes playable and inside draws rarely if ever are. But the term is also used in games like Texas Hold'em where it is less relevant, because many inside draws can be played profitably and some outside draws cannot be, other factors usually being more important.

Seven-card games like hold'em and stud also allow the possibility of *double belly-buster* draws, also called *double-inside* or *two-way* draws, which, like an inside draw, a card is needed within a series to fill. But unlike simple inside draws, two ranks can fill the hand. An example of this is Ae 3e 4c 5`7c, in which a deuce fills the inside straight A2345, and a six would fill the inside straight 34567.

These terms are also used for straight flush draws. 2e 3e 4e 5e is a straight-flush draw, since Ae and 6e will create straight flushes. Such hands are optimal drawing hands, since the player has up to fifteen outs (nine cards remaining in the suit, six cards which complete the straight but not the flush).

**Categories:** Poker gameplay and terminology

## Out

In a poker game with more than one betting round, an *out* is any unseen card that, if drawn, will improve a player's hand to one that is likely to win . Knowing the number of outs a player has is an important part of poker strategy. For example in draw poker, a hand with four diamonds has nine outs to make a flush: there are 13 diamonds in the deck, and four of them have been seen. If a player has two small pairs, and he believes that it will be necessary

for him to make a full house to win, then he has four outs: the two remaining cards of each rank that he holds.

Note that the hidden cards of a player's opponents may affect the calculation of outs. For example, assume that a Texas hold 'em board looks like this after the third round: 5` Kf 7f J`, and that a player is holding Af 10f. The player's current hand is just a high ace, which is not likely to win unimproved, so the player has a drawing hand. He has a minimum of seven outs for certain, called **nut** outs, because they will make his hand the best possible: those are the 2f, 3f, 4f, 6f, 8f, 9f, and Qf (which will give him an ace-flush with no possible better hand on the board) and the Qc and Qe, which will give him an ace-high straight with no higher hand possible. The 5f and Jf will also make him an ace-high flush, so those are possible outs since they give him a hand that is likely to win, but they also make it possible for an opponent to have a full house (if the opponent has something like K` Kc, for example). Likewise, the Q` will fill his ace-high straight, but will also make it possible for an opponent to have a spade flush. It is possible that an opponent could have as little as something like 7c 9c (making a pair of sevens); in this case even catching any of the three remaining aces or tens will give the player a pair to beat the opponent's, so those are even more potential outs. In sum, the player has seven guaranteed outs, and possibly as many as 18, depending on what cards he expects his opponents to have.

## See also

- Poker strategy
- Drawing
- Poker probability (Texas hold 'em)

**Categories:** Poker gameplay and terminology

## Poker chip

Casino *poker chips* are special tokens representing a fixed amount of money. Especially in cardrooms and casinos, poker chips are also known as *checks*.

### Contents

- 1 Construction and design
- 2 Colors
- 3 Security
- 4 See also

## Construction and design

Poker chips are fabricated with complicated graphics and edge spot patterns intending to make them difficult to counterfeit. The process used to make these chips is a trade secret and expensive - typically done on high pressure compression molding machines.

The typical material of construction is not clay as is sometimes believed, but a ceramic material with clay added for texture and weight. The breakable, clay chips of the 1960s and 1970s are no longer manufactured. The clay composition of modern chips varies by manufacturer, and is typically very slight (1-10%).

The chips used in American casinos generally weigh between 9.5 grams and 10 grams each. The chips sold for home use vary much more, depending on manufacturer and construction.

Common designs for home use depict the six faces of a die or the suit symbols around the edge on the face of the chip. They are typically manufactured with injection molding technology using ABS plastic. Some chips are molded around a small metal disc, called a slug, for weight.

European chips often come in Mother of Pearl. The higher value chips are often shaped like plaques.

## Colors

The most common colors used at United States casinos to differentiate between chip denominations are:

- White or blue: \$1
- Pink: \$2.50
- Red: \$5
- Blue: \$10
- Green: \$25 [\$20 in some casinos]
- Black: \$100
- Lavender: \$500

With most chips bought in stores, the chips inside are a usually equal mixture of \$1, \$5, \$10 and \$25 [and sometimes \$100]

\$2.50 chips are almost exclusively used for blackjack tables, since a natural typically pays 3:2 and most wagers are in increments of \$5. However, the Tropicana Casino in Atlantic City, New Jersey has used pink chips in \$7.50-\$15 and \$10-\$20 poker games. Low-denomination yellow chips can vary in value: \$20 by statute in Atlantic City and Illinois (which, oddly, also uses "mustard yellow" \$0.50 chips [1]); \$5 at most Southern California poker rooms; \$2 at Foxwoods' poker room in Ledyard, Connecticut and at Casino del Sol in Tucson, Arizona; and \$0.50 at Potawatomi Casino in Milwaukee, Wisconsin. Blue chips are occasionally used for \$10, most notably by statute in Atlantic City. In Las Vegas and California, most casinos use blue or gray for \$1 chips.

Chips are commonly available in \$1000 denominations, depending on the wagering limits of the casino in question. Such chips are often yellow or orange and of a large size. Las

Vegas, Atlantic City, and other areas which permit high wagers typically have chips available in \$5000, \$10000, \$25000, and higher denominations; the colors for these vary wildly.

European casinos use a similar scheme, though certain venues (such as Aviation Club de France) use pink for €2 and blue for €10. European casinos also use plaques rather than chips for high denominations (usually in the €1000 and higher range).

Casino-style chips can be bought for home games, but the price is approximately US\$1 per chip.

Generic poker chip sets can be bought at a much lower price, less than US\$0.20 per chip. These simulate the weight and feel of casino chips, but are of a very inferior quality.

## Security

Each casino has a unique set of chips, even if the casino is part of a larger company. This distinguishes a casino's chips from others, since each chip and token on the gaming floor has to be backed up with the appropriate amount of cash. In addition, with the exception of Nevada, casinos are not permitted to honor another casino's chips.

The security features of casino chips are numerous. Artwork is of a very high resolution or of photographic quality. Custom color combinations on the chip edge (edge spots) are usually distinctive to a particular casino. Certain chips incorporate RFID technology, such as those at the new Wynn Casino in Las Vegas.

Counterfeit chips are rare. High levels of surveillance, along with staff familiarity with chip design and coloring, make passing fake chips difficult. Casinos, though, are prepared for this situation. On one such occasion, the casino removed all chips from the gaming floor and replaced them with new sets with alternative markings, which resulted in the arrest of the attempted counterfeiters. [2]

Casino chips used in tournaments are usually much cheaper and much simpler in design. Because the chips have no cash value, usually chips are designed with a single color (usually differing in shade or tone from the version on the casino floor), a smaller diameter, and a basic mark on the interior to distinguish denominations; however, at certain events (such as the World Series of Poker or other televised poker), chips approach quality levels of chips on the floor.

## See also

- Casino token

**Categories:** Poker gameplay and terminology

# Poker dealer

A *poker dealer* distributes cards to players and manages the action at a poker table.

## Contents

- 1 Professional dealers
- 2 Mechanics of dealing
  - 2.1 Shuffling
  - 2.2 American-style dealing
  - 2.3 European-style dealing
  - 2.4 Burning and turning
- 3 Responsibilities during a hand
- 4 See also

## Professional dealers

Any casino with a poker room must hire a staff of dealers. Casinos generally pay dealers minimum wage. However, a dealer's primary source of income is not salary, but tips from players. Tip income may be substantial for dealers who can deal hands quickly and efficiently, and are selected by the casino to deal in higher limit games.

To become employable by a casino, applicants without prior experience are typically required to complete a 4-6 week training program at a dealing school. Dealing in a casino may require working late hours and remaining seated for long periods of time. Dealers also commonly work holidays, since these are especially busy days for casinos. Having to deal with difficult individuals may be another drawback to dealing at a casino—some players are abusive to dealers.

Major poker tournaments also hire dealers. For a given tournament stop, the tournament coordinator will hire dealers on contract for the duration of the tournament, which may be a few days to a few weeks. Room and board may or may not be provided by the tournament management; the dealer is typically responsible for his own travel expenses.

## Mechanics of dealing

Dealers must be proficient in shuffling the deck, distributing the cards to the players, and, if required by the game being dealt, turning up the community cards in the center of the table. There are two methods of distributing the cards, "American"-style and "European"-style.

## **Shuffling**

To shuffle the cards, the dealer follows a sequence defined by the casino. First all cards are spread out on the table and pushed around randomly. This is called "scrambling" or "washing" the cards. Then the cards are collected and squared into a deck. At this point a typical shuffling sequence might be: riffle, riffle, box, riffle. Professional dealers always keep both halves of the deck very low to the table while shuffling.

Finally, a cut card is placed on the table and the deck is cut onto the card. The cut card is held on the bottom of the deck for the entire hand, to keep the bottom card from being exposed.

Shuffling machines have been introduced in some poker rooms. Two decks are constantly in play; one is dealt while the other is shuffled in the machine. To begin a new deal, the dealer removes the shuffled deck from the machine, cuts it, and begins dealing. The machines speed up play, simplify the dealer's work, and also add some security to the game, since the machine counts the cards between every hand.

## **American-style dealing**

In American-style dealing, the deck is held in one hand, and the dealer pinches the front-right corner of the top card between the other thumb and index finger. The card is then thrown to the player, with a wrist extending motion.

The positioning of the throwing wrist is critical, since the cards must be maintained low and level with the table surface, so that players at the table can not see the undersides of the cards.

American-style dealers may use a completely different dealing motion to deliver cards to the one-seat (the player seated immediately to the dealer's left), and sometimes the two-seat (two seats to the dealer's left), since these are awkward to reach for a right handed dealer with the dealing motion described above.

## **European-style dealing**

European-style dealers touch only the top of each card being dealt. The card is pushed off the top of the deck to the table surface in front of the dealer. The dealer then propels the card toward the recipient, usually imparting some spin to the card for stability.

## **Burning and turning**

Before dealing a community card, the top card off the deck is burned, or thrown in the discard pile. The rationale for burning is that the top card on the deck is visible to players during the previous betting round, so that a cheat might be able to spot a mark on the top card and therefore gain an advantage on his opponents.

When burning, the deck must be held low and the burn card kept level with the table surface. Casinos watch carefully to make sure a dealer does not "flash", or inadvertently expose, the burn cards to players at the table.

In flop games, the three community cards comprising the flop are turned up simultaneously, never one at a time.

## Responsibilities during a hand

Dealers control the action during a hand. This may include prodding players to act, verbally announcing actions of players to the rest of the table, and correcting players who act out of turn.

Dealers also must manage the pot. The dealer must verify the amount of bets and raises by players, collect folded hands, maintain side pots, and read player's hands at showdown to identify the winner or winners. In games with a rake, the dealer also must keep track of the amount of money in the pot and remove the appropriate cut for the house.

At times the dealer needs to communicate with the floor, or other casino staff. Some casinos equip the dealers with a headset or walkie-talkie for this purpose, while in other casinos the dealer must shout over the ambient noise. The following table shows some common calls a dealer may make, and their meanings:

Call	Meaning
"Floor" "Decision"	or Requests the floor manager to come to resolve a dispute.
"Seat open"	Announces that a player has left the game and a seat is now available.
"Player in"	Notifies the pit boss that a vacant seat has been filled.
"Players checks"	Requests a chip runner to retrieve chips for a player.
"Fill"	Requests a chip runner to bring chips to fill the dealer tray. This tray must be kept full of low denomination chips in a high limit game, so that change may be made in the pot so that the rake may be taken out.
"Set up"	Requests replacement decks be brought to the table.
"Pick up"	For cash games, used when an absent player's chips should be removed from the table to free the seat. Also, for single-table satellites, used to request the staff to come collect the cash entry fees from the table.
"Winner"	Used in single-table satellites to announce that the game has completed and the prize is to be paid.
"Brush"	Calls pit boss to deal with a game participation problem, for example if a game must be broken due to insufficient players.

## See also

- Croupier

**Categories:** Poker gameplay and terminology

## Poker equipment

The following is a list of equipment used for a game of poker:

- *Cards:* Standard playing cards are used. In home games it is common to have two decks with distinct backs, and to shuffle the unused deck while each hand is in progress. Casinos typically change decks every few hours, to limit the wear of the cards. It is not unusual for paper cards to become bent quickly, as players often read their "hole" cards by peeking at the corner rather than lifting the card. Card quality can be preserved for longer if players agree not to bend cards, and proper shuffling techniques are used.
- *Poker chips:* Currency is difficult to stack or handle, so most poker games are played with *chips*, or coin-shaped tokens of uniform size and weight, usually 39mm wide and anywhere from 5 to 16 grams in weight, whose money value is determined by their color. Traditionally, poker chips were made of bone; however, modern casino chips are often made of clay. Clay chips are considered the most upscale variety of poker chip. Another high-end variety of chips are ceramic chips, ceramic chips that can be customized easily cost around \$1 per chip. Plastic chips are also available, at a wide variety of quality levels.
- *Poker table:* A typical poker game will have between two and ten players. A soft table top is preferred to facilitate picking up chips and cards.
- *Lammers:* Lammers are plastic, chip-shaped tokens with text written on them. Most commonly used is a dealer button with either the word "DEALER" or a "D" written on it; this item (also known as the buck) indicates who shall deal next. In a casino setting, lammers are also used to indicate which variant is being used, whose turn it is to pay the blind, and as no cash value tournament buy-in chips.
- *Cut card:* This is a thick plastic card, the same size and shape of a playing card. The dealer will place the deck upon this card before dealing, in order to prevent the accidental exposure of the bottom card of the deck. While rarely used in home games, the cut card is universal in casino play.
- *Timer:* If playing a poker tournament, a timer is used to count down periods in which the blinds are at certain levels. When the timer reaches 0:00, the blinds go to a higher level.
- *Card protectors::* In games where all of a player's cards are facedown, some players use items like specialty chips or glass figures to place on top of their cards to protect them from being accidentally discarded.

**Categories:** Poker gameplay and terminology

## Poker probability



In poker, the *probability* of each type of 5 card hand can be computed by calculating the proportion of hands of that type among all possible hands.

## Contents

- 1 Frequency of 5 card poker hands
- 2 Derivation
- 3 Frequency of 7 card poker hands
- 4 See also

## Frequency of 5 card poker hands

The following enumerates the frequency of each hand, given all combinations of 5 cards randomly drawn from a full deck of 52, without wild cards. The probability is calculated based on 2,598,960, the total number of 5 card combinations. Here, the probability is the frequency of the hand divided by the total number of 5 card hands, and the odds are defined by  $(1/p) : 1$ , where  $p$  is the probability. (The frequencies given are exact; the probabilities and odds are approximate.)

Hand	Frequency	Probability	Odds against
<i>Royal flush</i>	4	0.00000154 %	649,740 : 1
<i>Straight flush</i>	36	0.0000154 %	64,973 : 1
<i>Four of a kind</i>	624	0.0240 %	4,164 : 1
<i>Full house</i>	3,744	0.144 %	693 : 1
<i>Flush</i>	5,108	0.197 %	508 : 1
<i>Straight</i>	10,200	0.392 %	254 : 1
<i>Three of a kind</i>	54,912	2.11 %	46.3 : 1
<i>Two pair</i>	123,552	4.75 %	20.0 : 1
<i>One pair</i>	1,098,240	42.3 %	1.37 : 1
<i>No pair</i>	1,302,540	50.1 %	0.995 : 1
Total	2,598,960	100 %	1 : 1

The royal flush is also included as a straight flush above. The royal flush can be formed 4 ways (one for each suit), giving it a probability of 0.000001539077169 and odds of 649,740 : 1.

When ace-low straights and straight flushes are not counted, the probabilities of each are reduced: straights and straight flushes become 9/10 as common as they otherwise would be.

## Derivation

The following computations show how the above frequencies were determined. To understand these derivations, the reader should be familiar with the basic properties of the binomial coefficients and their interpretation as the number of ways of choosing elements from a given set. See also: sample space and event (probability theory).

- Straight flush — Each straight flush is uniquely determined by its highest ranking card; and these ranks go from 5 (A-2-3-4-5) up to A (T-J-Q-K-A) in each of the 4 suits.
- Four of a kind — Any one of the thirteen ranks can form the four of a kind, leaving  $52 - 4 = 48$  possibilities for the final card.
- Full house — The full house comprises a triple (three of a kind) and a pair. The triple can be any one of the thirteen ranks, and three of the four cards of this rank are chosen. The pair can be any one of the remaining twelve ranks, and two of the four cards of the rank are chosen.
- Flush — The flush contains any five of the thirteen ranks, all of which belong to one of the four suits, minus the 40 straight flushes.
- Straight — The straight consists of any one of the ten possible sequences of five consecutive cards, from 5-4-3-2-A to A-K-Q-J-T. Each of these five cards can have any one of the four suits. Finally, as with the flush, the 40 straight flushes must be excluded,
- Three of a kind — Any of the thirteen ranks can form the three of a kind, which can contain any three of the four suits. The other cards can have any two of the remaining twelve ranks, and each can have any one of the four suits.
- Two pair — The pairs can have any two of the thirteen ranks, and each pair can have two of the four suits. The final card can have any one of the eleven remaining ranks, and any suit.
- Pair — The pair can have any one of the thirteen ranks, and any two of the four suits. The remaining three cards can have any three of the remaining twelve ranks, and each can have any of the four suits.
- No pair — A no-pair hand contains five of the thirteen ranks, discounting the ten possible straights, and each card can have any of the four suits, discounting the four possible flushes. Alternatively, a no-pair hand is any hand that does not fall into one of the above categories; that is, any way to choose five out of 52 cards, discounting all of the above hands.

## Frequency of 7 card poker hands

In some popular variations of poker, a player uses the best five-card poker hand out of seven cards. The frequencies are calculated in a manner similar to that shown for 5-card hands, except additional complications arise due to the extra two cards in the 7 card poker hand. The total number of distinct 7-card hands is 133,784,560. It is notable that the

probability of a no-pair hand is less than the probability of a one-pair or two-pair hand. (The frequencies given are exact; the probabilities and odds are approximate.)

Hand	Frequency	Probability	Odds against
<i>Straight flush</i>	41,584	0.03108 %	3,216 : 1
<i>Four of a kind</i>	224,848	0.1681 %	594 : 1
<i>Full house</i>	3,473,184	2.60 %	37.5 : 1
<i>Flush</i>	4,047,644	3.03 %	32.1 : 1
<i>Straight</i>	6,180,020	4.62 %	20.6 : 1
<i>Three of a kind</i>	6,461,620	4.83 %	19.7 : 1
<i>Two pair</i>	31,433,400	23.5 %	3.26 : 1
<i>One pair</i>	58,627,800	43.8 %	1.28 : 1
<i>No pair</i>	23,294,460	17.4 %	4.74 : 1
Total	133,784,560	100 %	0 : 1

## See also

### Poker topics:

- Poker probability (Texas hold 'em)
- Poker

### Math and probability topics:

- Odds

**Categories:** Poker gameplay and terminology

## Poker psychology

*Poker* is a multi-faceted game that values many skills, including the psychology involved in playing against your competitors. For example, many games often end with a very weak hand, such as a pair of sevens, beating a weaker hand, such as a pair of threes. Your hand doesn't have to be the best hand possible. It simply has to be better than those still active in the hand.

Discerning the likely holdings your opponents have is a skill. Reading poker tells -- twitches, trembles, and other signs -- might give you a clue as to what your opponent has. Mastering the psychology of poker is a crucial part of reading tells, as well a larger decisionmaking.

Poker psychology boils down to your ability to observe how others play, and use that experience to judge how your opponents may be playing in the current hand. The simplest layer of poker psychology is to watch what your opponents visibly do based on their own cards. For example, tracking the betting patterns of each player.

By observing patterns, players can make informed judgements in response.

**Categories:** Poker gameplay and terminology

# Poker strategy

## Contents

- 1 The fundamental theorem of poker
- 2 Pot odds and poker probabilities
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- 4 Position
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*Poker strategy* is a complex subject. This article only attempts to introduce basic strategy concepts.

## The fundamental theorem of poker

The fundamental theorem of poker states that every time you play your hand the way you would if you could see your opponent's cards, you gain, and every time your opponent plays his cards differently from the way he would play them if he could see your cards, you gain.[1] This theorem is the foundation for many poker strategy topics. For example, bluffing and slow-playing (explained below) are examples of using deception to induce your opponents to play differently than they would if they could see your cards. There are some exceptions to the fundamental theorem in certain multi-way pot situations, as described in Morton's theorem.

See the articles on the fundamental theorem of poker and Morton's theorem for more details.

## Pot odds and poker probabilities

The relationship between pot odds and odds of winning is one of the most important concepts in poker strategy. *Pot odds* are the ratio of the size of the bet required to stay in the pot to the size of the pot.[1] For example, if a player must call a \$10 bet for a chance to win a \$40 pot (not including his \$10 call), his pot odds are 1-to-4 (20% probability). To have a positive expectation, a player's odds of winning must be at least equal to his pot odds. Continuing the previous example, if the player's odds of winning are also 1-to-4, if he plays the pot five times, he puts in \$10 five times, loses four times and wins \$50 once (breaking even).

See the article on pot odds for a more about including manipulating pot odds, implied pot odds, effective implied odds, and reverse implied odds.

See the article on poker probability for more about determining the odds of having (or improving to) the best hand.

## Deception

By employing deception, a poker player hopes to induce his opponent(s) to act differently than they would if they could see his cards. *Bluffing* is a form of deception to induce opponents to fold superior hands. Against observant opponents, it is necessary for a player to bluff sometimes to induce opponents to call his bets when he actually does have a superior hand. If opponents observe that a player never bluffs, they won't call his bets unless they have very good hands. *Slow-playing* (also called "sandbagging") is deceptive play in poker that is roughly the opposite of bluffing: betting weakly with a strong holding rather than betting strongly with a weak one.

See the article on bluffing for more about bluffing strategies, semi-bluffs, and optimal bluffing frequency.

See the article on slow playing for more about slow playing strategies.

## Position

*Position* refers to the order in which players are seated around the table and the strategic consequences of this. Generally, players in earlier position (who have to act first) need stronger hands to bet or raise than players in later position. For example, if there are five opponents yet to act behind a player, there is a greater chance one of the opponents will have a better hand than if there was only one opponent yet to act. Being in late position is an advantage because a player gets to see how his opponents in earlier position acted (which provides the player more information about their hands than they have about his).

See the article on position for more about positional play.

## Reasons to raise

Unlike calling, raising has an extra way to win: opponent(s) may fold. An opening bet may be considered a raise from a strategy perspective. Sklansky gives seven reasons for raising, summarized below.[1]

- *To get more money in the pot when a player has the best hand:* If a player has the best hand, raising for **value** enables him to win a bigger pot.
- *To drive out opponents when a player has the best hand:* If a player has a made hand, raising may protect his hand by driving out opponents with drawing hands who may otherwise improve to a better hand.
- *To bluff or semi-bluff:* If a player raises with an inferior or drawing hand, the player may induce a better hand to fold. In the case of semi-bluff, if the player is called, he still has a chance to improve to a better hand (and also win a larger pot).
- *To get a free card:* If a player raises with a drawing hand, his opponent may check to him on the next betting round, giving him a chance to get a free card to improve his hand.
- *To gain information:* If a player raises with an uncertain hand, he gains information about the strength of his opponent's hand if he is called. Players may use an opening bet on a later betting round (probe or continuation bets) to gain information by being called or raised (or may win the pot immediately).
- *To drive out worse hands when a player's own hand may be second best:* Sometimes, if a player raises with the second best hand with cards to come, raising to drive out opponents with worse hands (but who might improve) may increase the expected value of his hand by giving him a higher probability of winning in the event his hand improves.
- *To drive out better hands when a come hand bets:* If an opponent with an apparent come hand (drawing hand) bets before a player, if the player raises, opponents behind him who may have a better hand may fold rather than call a bet and raise. This is a form of isolation play.

## Reasons to call

There are several reasons for calling a bet or raise, summarized below.

- *To see more cards:* With a drawing hand, a player may be receiving the correct pot odds with the call to see more cards.
- *To limit loss in equity:* Calling may be appropriate to when a player has adequate pot odds to call but will lose equity on money contributed to the pot.
- *To avoid a re-raise:* Calling denies the original bettor the opportunity of re-raising.
- *To conceal the strength of a player's hand:* If a player has a very strong hand, he might smooth call on an early betting round to avoid giving away the

strength of his hand on the hope of getting more money into the pot in later betting rounds.

- *To manipulate pot odds:* By calling (not raising), a player offers any opponents yet to act behind him more favorable pot odds to also call. For example, if a player has a very strong hand, a smooth call may encourage opponents behind him to overcall, building the pot. Particularly in limit games, building the pot in an earlier betting round may induce opponents to call future bets in later betting rounds because of the pot odds they will be receiving.

- *To set up a bluff on a later betting round:* Sometimes referred to as a long-ball bluff, calling on an earlier betting round can set up a bluff (or semi-bluff) on a later betting round.[2]

## Gap concept

The *gap concept* states that a player needs a better hand to play against someone who has already opened the betting than he would need to open himself.[3] The gap concept reflects that players prefer to avoid confrontations with another player who has already indicated strength, and that calling only has one way to win (by having the best hand), whereas opening (or raising) may also win immediately if your opponent(s) fold.

## Sandwich effect

Related to the gap effect, the sandwich effect states that a player needs a stronger hand to stay in a pot when there are opponents yet to act behind him.[2] Because the player doesn't know how many opponents will be involved in the pot or whether he will have to call a re-raise, he doesn't know what his effective pot odds actually are. Therefore, a stronger hand is desired as compensation for this uncertainty.

## Loose/tight play

*Loose* players play relatively more hands and tend to continue with weaker hands. *Tight* players play relatively fewer hands and tend not to continue with weaker hands. The following concepts are applicable in loose games (and their inverse in tight games):[1]

- Bluffs and semi-bluffs are less effective because loose opponents are less likely to fold.
- Requirements for continuing with made hands may be lower because loose players may also be playing lower value hands.
- Drawing to incomplete hands, like flushes, tends to be more valuable as draws will often get favorable pot odds and a stronger hand (rather than merely one pair) is often required to win in multi-way pots.

## Aggressive/passive play

*Aggressive* play refers to betting and raising. *Passive* play refers to checking and calling. Unless passive play is being used deceptively as mentioned above, aggressive play is generally considered stronger than passive play because of the bluff value of bets and raises and because it offers more opportunities for your opponents to make mistakes.[1]

See the article on aggressive play for more details.

## Hand reading and tells

*Hand reading* is the process of making educated guesses about the possible cards an opponent may hold based on the sequence of actions in the pot. A *tell* is a detectable change in an opponent's behavior or demeanor that gives clues about his hand. Educated guesses about an opponent's cards can help a player avoid mistakes in his own play, induce mistakes by his opponent(s), or to influence the player to take actions that he would normally not take under the circumstances. For example, a tell might suggest an opponent has missed a draw and holds a weak hand, but a player also missed a draw and is sure his hand is even weaker. In this case, using the tell, the player may decide a bluff would be more effective than usual.

See the article on tells for more information.

## Table image and opponent profiling

By observing the tendencies and patterns of your opponents, you can make more educated guesses about their potential holdings. For example, if a player has been playing extremely tight (playing very few hands), when they finally do enter a pot, you may surmise that they have stronger than average cards. Your *table image* is the perception of your opponents of your own pattern of play. You can leverage your table image by playing out of character and thereby inducing your opponent(s) to misjudge your hand and make a mistake.

## Equity

A player's *equity* in a pot is his expected share of the pot, expressed either as a percentage (probability of winning) or expected value (amount of pot \* probability of winning). *Negative equity*, or *loss in equity*, occurs when contributing to a pot with a probability of winning less than  $1 / (\text{number of opponents matching the contribution})$ .

*Example*

Alice contributes \$12 to a pot and is matched by two other opponents. Alice's \$12 contribution "bought" the chance to win \$36. If Alice's probability of winning is 50%, her equity in the \$36 pot is \$18 (a gain in equity because her \$12 is now "worth" \$18). If her probability of winning is only 10%, Alice loses equity because her \$12 is now only "worth" \$3.60.



If there is already money in the pot, the pot odds associated with a particular play may indicate a positive expected value even though it may have negative equity.

#### *Texas hold'em example*

Alice holds **Jf7`**. Bob holds **Ke6`**. After the flop, the board is **5e6e8f**. If both hands are played to a showdown, Alice has a 45% chance to win, Bob has a 53% chance to win and there is a 2% chance to split the pot. The pot currently has \$51. Alice goes all-in for \$45 and is certain that Bob will call. Alice's implied pot odds for the all-in raise are 32%. Bob's simple pot odds for the call are also 32%. Since both have a probability of winning greater than 32%, both plays (the raise and the call) have a positive expectation. However, since Bob has more equity in the pot than Alice (53% vs. 45%), Alice would have been better off playing the pot as cheaply as possible. When Alice raised, she gave up the difference in equity on the money she contributed to the pot.

## Short-handed considerations

When playing *short-handed* (at a table with fewer than normal players), players must loosen up their play (play more hands) for several reasons:[1]

- There is less likelihood of another player having a strong hand because there are fewer players.
- Each player's share of the forced bets increases because there are fewer players contributing to the forced bets, thus waiting for premium hands becomes more expensive.

## Structure considerations

The blinds and antes and limit structure of the game has a significant influence on poker strategy. For example, it is easier to manipulate pot odds in no-limit and pot-limit games than in limit games. In tournaments, as the size of the forced bets relative to the chip stacks grows, pressure is placed on players to play pots to avoid being anted/blinded away.[4]

## See also

- Fundamental theorem of poker
- Morton's theorem
- Pot odds
- Poker probability
- Tells

## Poker plays

- Aggressive plays
- Bluffing plays
- Check-raise plays
- Defense plays
- Drawing plays
- Isolation plays
- Position plays
- Protection plays
- Slow plays
  - Stealing plays

### Specific games

- Texas hold 'em
- Omaha hold 'em
- Draw poker / Lowball
- Seven-card stud
  - Razz

### Notes

1. ^ **a b c d e f** David Sklansky (1987). The Theory of Poker. Two Plus Two Publications. ISBN 1880685000.
2. ^ **a b** Dan Harrington and Bill Robertie (2004). Harrington on Hold'em: Expert Strategy For No-Limit Tournaments; Volume I: Strategic Play. Two Plus Two Publications. ISBN 1880685337.
3. ^ David Sklansky (2001). Tournament Poker for Advanced Players. Two Plus Two Publications. ISBN 1880685280.
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**Categories:** Poker gameplay and terminology

## Position

*Position* in poker refers the order in which players are seated around the table and the related poker strategy implications. Players who act first are in "early position"; players who act later are in "late position". A player "has position" on opponents acting before him and is "out of position" to opponents acting after him. Because players act in clockwise order, a player "has position" on opponents seated to his right, except when the opponent has the button and certain cases in the first betting round of games with blinds.

The primary advantage held by a player in late position is that he will have more information with which to make his decisions than players in early position, who will have to act first. Also, as earlier opponents fold, the probability of a hand being the best goes up as the number of opponents goes down.

#### *Texas hold 'em example*

There are 10 players playing \$4/\$8 fixed limit. Alice pays the \$2 small blind. Bob pays the \$4 big blind. Carol is under the gun (first to act). If Carol has a hand like **Ke J**, she should probably fold. With 9 opponents remaining to act, the chances are good that at least one of them will have a dominating hand like A-A, K-K, A-K, A-J, K-Q or J-J, and even if no one does, seven of them (all but the two players in the blind) will have position on Carol in the next three betting rounds.

Now instead, suppose David in the cut-off position (to the right of the button) has the same **Ke J** and all players fold to him. In this situation, there are only three opponents left to act, so the odds that one of them has a dominating hand are considerably less. Secondly, two of those three (Alice and Bob) will be out of position to David on later betting rounds. A common play would be for David to raise and hope that the button (the only player who has position on David) folds. David's raise might simply steal the blinds if they don't have playable hands, but if they do play, David will be in good shape to take advantage of his position in later betting rounds.

## See also

- Poker jargon
- Poker strategy
  - Aggressive plays
  - Bluffing plays
  - Check-raise plays
  - Defense plays
  - Drawing plays
  - Isolation plays
  - Protection plays
  - Slow plays
  - Stealing plays

**Categories:** Poker gameplay and terminology

## Post oak bluff

A *post oak bluff* is a bet in no-limit or pot-limit poker which is an attempt to steal the pot in a way that holds little risk for the player making the bet.

A player executing the post oak bluff bets a small amount relative to the size of the pot, in order to create the impression that he is trying to lure the other player into the pot (as if he had a winning hand--this kind of bet with a strong hand is called a "here kitty kitty" bet). When successful, the other player(s) fold rather than fall into the perceived trap.

The term itself carries derogatory connotations because the play is often seen as "gutless," to quote Doyle Brunson who popularized the term in his book *Super System*, and who claims that he never makes the play.

**Categories:** Poker gameplay and terminology

## Pot

The *pot* in poker refers to the sum of money that players wager during a single hand or game, according to the betting rules of the variant being played. It is likely that the word pot is related to or derived from the word jackpot.

At the conclusion of a hand, either by all but one player folding, or by showdown, the pot is won or shared by the player(s) holding the winning cards. Sometimes a pot can be split between many players. This is particularly true in high-low games where not only the highest hand can win, but under appropriate conditions, the lowest hand will win a share of the pot.

See "all in" for more information about side pots.

### See also

- [Poker jargon](#)

**Categories:** Poker gameplay and terminology

## Pot odds

### Contents

- [1 Simple pot odds](#)
- [2 Implied pot odds](#)
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Poker players use *pot odds* to determine the expected value (profitability over the long run) of a play. In general, *odds* may be expressed as a win-to-loss ratio. Odds may be converted into percentage *probabilities* using the formula: win-to-loss odds = win / (win + loss) % probability. For example 1-to-4 odds translate to  $1 / (1 + 4) = 20\%$  probability. Odds are also commonly expressed in terms of *odds against* (loss-to-win ratio). As a convention, this article uses *odds for* (win-to-loss).

For every potential action (check, fold, call, raise) at every point in a game of poker, the correct strategy is influenced by the pot odds facing the player (and offered to the opponent(s)). The lower the pot odds facing a call, the more likely it is that folding will be the correct play, and the higher the pot odds facing a call, the more likely it is that calling is the correct play. For example, if a player can call for \$1 with a \$1000 pot, there is essentially no hand that would be correct to fold, because the player only has to win one time in a thousand for the call to be profitable.

The *probability of winning* is the chance that the player's hand will win either by being the best hand at the showdown or because the opponents fold.

#### *Texas hold 'em example*

In Texas hold 'em, the approximate percentage probability that a player will hit an out on the next card is calculated as: (number of outs) x 2 + 1. For example, if a player has a potential flush and therefore 9 cards could improve his hand, there is roughly a 19% ( $9 \times 2 + 1$ ) probability the next card will give him his flush. With two cards to come, the approximate percentage probability is: (number of outs) x 4 - 1. See discussion of Poker probability (Texas hold 'em) for more details.

For an action to have a positive expectation, a player's odds of winning must be at least equal to the applicable pot odds.

## Simple pot odds

*Simple pot odds*, or *expressed pot odds*, apply when considering a call when no further betting will be made (e.g., calling a bet on the final round). Simple pot odds are the ratio of the size of the potential bet to the size of the pot (bet-to-pot ratio). For example, if a player must call a \$10 bet for a chance to win a \$40 pot (not including the player's \$10 call), the player's simple pot odds are 1-to-4 (20% probability). Continuing the example, assume the player's odds of winning are also 1-to-4. If the pot is played five times, the player puts in \$10 five times, loses four times and wins \$50 once (breaking even).

Simple pot odds apply on any betting round when making a pure bluff if the bluff will be given up if called or raised.

## Implied pot odds

*Implied pot odds*, or *implied odds*, apply in situations where future betting may occur (e.g., with more cards or more draws to come) and the player's hand is currently a certain loser

but may improve to a certain winner (e.g., improving from no pair to a nut flush). Precise calculation of implied odds for hands that may be probable winners is significantly more complex and not well-documented in poker literature. Note on terminology: some authors use the term implied pot odds to specifically refer to situations with one card (or draw) to come and the term *effective implied pot odds* to refer to situations with more than one card (or draw) to come.

A player's *implied pot* is the current pot plus the value of future bets expected from opponents that may be won, excluding the player's own bets. When figuring the implied pot, a player must estimate the bets expected from opponents in the event the player wins the pot.

*Texas hold 'em example*

Alice holds the A<sup>♠</sup> and the board shows three low spades with one card to come. Alice believes she will only win if another spade comes on the river to make her a nut flush. To figure her implied pot, Alice must estimate the expected bets by her opponents if the spade comes on the last card. In that event, because of the fair chance the opponent may not have a high spade, Alice may reasonably have a low expectation of further contributions to the pot by her opponents.

A player's *effective bet* is the sum of the current potential bet plus all future bets a player expects to make to see the last card, excluding any bets on the end. When there is only one card to come, the effective bet is simply the current potential bet under consideration. A player's implied pot odds are the ratio of the effective bet to the implied pot.

*Texas hold'em example, two cards to come*

With two cards to come, Alice holds a nut flush draw after the flop and faces a \$5 call to win a \$20 pot. If Alice makes her flush, she expects her opponent to contribute another \$10 on the turn and \$10 on the river. Alice's effective call is \$15 (\$5 on the flop + \$10 on the turn). Alice's implied pot is \$40 (\$20 current pot + \$10 turn + \$10 river). Alice's implied pot odds are \$15-to-\$40 or 27% ( $15 / (15 + 40)$ ). A call by Alice has a positive expectation because the probability of making her flush (35% with two cards to come) is greater than the implied pot odds (27%).

*Texas hold'em example, one card to come*

With one card to come, Alice still holds a nut flush draw and faces a \$10 call to win a \$35 pot. If Alice makes her flush, she expects her opponent to contribute another \$10 in the final round. Alice's implied pot is \$45 (\$35 current pot + 10 future bets by her opponent). Alice's implied pot odds are \$10-to-\$45 or 18% ( $10 / (10 + 45)$ ). A call by Alice has an about break-even expectation because the probability of making her flush (19% with one card to come) is about the same as her implied pot odds (18%).

## Reverse implied pot odds

*Reverse implied pot odds*, or *reverse implied odds*, apply to situations where a player will win the minimum if he has the best hand but lose the maximum if he does not have the best hand. Aggressive actions (bets and raises) are subject to reverse pot odds, because they win the minimum if they win immediately (the current pot), but may lose the maximum if called (the current pot plus the called bet or raise). These situations may also occur when a player has a made hand with little chance of improving which he believes may currently be the best hand, but an opponent continues to bet. If the opponent is weak or bluffing, he will likely give up after the player calls and not call any bets the player makes. If the opponent has a superior hand, he will continue the hand (extracting additional bets or calls from the player).

### *Limit Texas hold'em example*

With one card to come, Alice holds a made hand with little chance of improving and faces a \$10 call to win a \$30 pot. If her opponent is weak or bluffing, Alice expects no further bets or calls from her opponent. If her opponent has a superior hand, Alice expects the opponent to bet another \$10 on the end. Therefore, if Alice wins, she only expects to win the \$30 currently in the pot, but if she loses, she expects to lose \$20 (\$10 call on the turn + \$10 call on the river). Because she is risking \$20 to win \$30, Alice's reverse implied pot odds are \$20-to-\$30 or 40% ( $20 / (20 + 30)$ ). For calling to have a positive expectation, Alice must believe her probability of winning the pot is at least 40%.

## Manipulating pot odds

Often a player will bet to manipulate the pot odds offered to other players. A common example of manipulating pot odds is make a bet to protect a made hand that discourages opponents from chasing a drawing hand.

### *No-limit Texas hold'em example*

With one card to come, Bob has a made hand, but the board shows a potential flush draw. Bob wants to bet enough to make it wrong for an opponent with a flush draw to call, but Bob doesn't want to bet more than he has to in the event the opponent already has him beat. How much should Bob bet?

Assume a \$20 pot and one opponent. If Bob bets half the pot (\$10), the opponent faces a \$10 call to win a \$30 pot. The opponent's pot odds will be \$10 call-to-\$30 pot or 25% ( $10 / (10 + 30)$ ). If the opponent is on a flush draw (19% with one card to come), the pot is not offering adequate pot odds for the opponent to call unless the opponent thinks he can induce additional final round betting from Bob if the opponent make his hand (see implied pot odds).

## Bluffing frequency

Game theory shows that a player should bluff a percentage of the time equal to his opponent's pot odds to call the bluff. For example, in the final betting round, if the pot is \$30 and a player is contemplating a \$30 bet (which will give his opponent 2-to-1 pot odds for the call), the player should bluff half as often as he would bet for value (one out of three times).

See the article on bluffing for more details.

## See also

- Poker jargon
- Poker strategy
- Poker probability
- Poker probability (Texas hold 'em)

## References

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**Categories:** Poker gameplay and terminology

## Protection

In poker, one of the motives for betting or raising is to give your hand *protection*, which means to encourage opponents to fold a drawing hand that might otherwise improve to the best hand. A player generally protects made hands perceived vulnerable to an opponent's drawing hand. A protection play differs from a bluff in that the bluff can win only when the opponent folds, while protection bet is made with a hand that is likely to win a showdown, but isn't strong enough for slow playing.

The importance of protection increases when there are multiple opponents. For example, if a hand is presently the best, but each of four opponents has a 1-in-6 chance of drawing an



out, the four opponents combined become the favorite to win, even though each one is individually an underdog. With a protection bet, some or all of them may fold, leaving fewer opponents and a better chance of winning.

The term protection is also often heard in the context of an all-in player (see poker table stakes rules). A bet by an opponent serves to protect the all-in player by reducing the number of opponents the all-in player must beat. To deliberately make such a bet solely to protect another player's hand constitutes collusion.

A player may also be said to "protect" his or her cards by placing an object like a specialty chip or miniature figure upon them. This prevents the player from having his cards accidentally collected by the dealer.

## See also

- Poker jargon
- Poker strategy
  - Aggressive plays
  - Bluffing plays
  - Check-raise plays
  - Defense plays
  - Drawing plays
  - Isolation plays
  - Position plays
  - Slow plays
  - Stealing plays

**Categories:** Poker gameplay and terminology

## Public cardroom rules

While specific rules vary from casino to casino, most public poker cardrooms have similar rules and regulations. Refer to the article on betting and the articles on poker variants for detailed discussion of the rules of poker gameplay.

### Contents

- 1 Popular poker variants
- **2 Waiting lists**
- 3 Chips
- 4 Rake
- 5 Common rules

- 6 Legality
- 7 See also
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## Popular poker variants

While different casinos offer different poker variants, the most popular poker games offered in U.S. casinos include:

- Texas hold 'em
- Seven-card stud
- Omaha hold 'em

Casinos offer poker in ring game (cash game or live-action game) and tournament formats.

## Waiting lists

Most casinos manage table seating on a first-come, first-served basis. During peak periods, there may be long waiting lists for poker seats. Players can normally be on multiple waiting lists (for different types of games and money amounts).

## Chips

While cash often plays, chips are the primary currency of the game. These can usually be purchased from the casino employee dealing the game, or from cashier windows found around the casino.

## Rake

The **rake** is the scaled commission fees taken by a casino operating a poker game. For ring games, it is generally 5-10% of each poker hand, up to a predetermined maximum amount, but not only can this percentage be anything, there are other non-percentage ways for a casino to take the rake. For tournaments, the rake is usually 10% of the buy-in. Poker is a player versus player game and the house does not wager against its players (unlike blackjack or roulette) so this fee is the principal mechanism to generate revenues.

## Common rules

Aside from the particular rules of gameplay, some common rules in U.S. public cardrooms<sup>[1][2]</sup> include:

- Players must act in turn. Players should not telegraph or otherwise indicate intentions to act prior to their turn to act.

- In the event of an action out-of-turn, the action may be binding if there is no bet, call or raise between the out-of-turn action and the player's proper turn.
- Verbal declarations are binding and take precedence over non-verbal actions.
- Betting actions without a verbal declaration must be made in a single motion or gesture ("no string bet" rule).
- Knocking or tapping the table is a check. Tossing or pushing cards away is a fold.
- If a player puts in chips equal to 50 percent or more of the minimum raise, he will be required to make a full minimum raise. Otherwise, the action is deemed a call and the excess chips should be returned to the player.
- In limit games, an oversized chip will be constituted to be a call if the player does not announce a raise. In no-limit, an oversized chip before the flop is a call; after the flop, an oversized chip by the initial bettor put in the pot will constitute the size of the bet. In pot-limit and no-limit, if a player states raise and throws in an oversized chip, the raise will be the maximum amount allowable up to the size of that chip.
- Bets should be placed in front of the player's cards. Chips should not be thrown (splashed) into the pot.
- Wagers must be at least the size of the previous bet or raise in that round, unless a player is going all-in.
- Hole cards, including folded hands, should not be revealed to other players until showdown. If a player reveals his hole cards to another player active in the current hand, all players have the right to also see the hole cards.
- Players may not verbally disclose the contents of their hand.
- Players may not advise other players how to play a hand ("One player to a hand" rule).
- Cards may not be removed or held below the table or otherwise concealed from view.
- Players must keep their highest denomination chips visible at all times.
- Except for small denominations used to tip for food or drinks, players may not remove a portion of their chips from the table (called going south or ratholing) unless they cash out and leave the game.
- Cards speak for themselves and prevail if a player mis-states the value of their hand at the showdown.
- Speaking in foreign languages at the table is prohibited.
- Players should not discuss or otherwise influence the hand-in-progress after folding.
- Cell-phone use at the table is prohibited.
- Profanity is prohibited.

## **Legality**

The authority to operate public cardrooms in the U.S. is primarily prescribed by state laws, with some Federal laws covering tribal gaming. States usually limit public poker cardrooms to casinos and parimutuel betting facilities (e.g., horse tracks, greyhound tracks, off-track betting (OTB) facilities, and Jai Alai frontons) or tribal reservations.

State laws may limit the type or nature of poker games offered in public cardrooms. For example, North Dakota has a limitation of \$25 per individual hand, game or event. Florida requires that all bets be no more than \$2; ring games in Florida cardrooms must use limit betting structures.[3] In Florida, poker tournaments are exempted from the betting structure rules and may use any betting structure including no limit.[4] Tournament formats are used to circumvent gambling rules in other states as well. Unlike some other forms of gambling, tribal gaming may be subject to state laws governing poker.[5]

## See also

- Poker
- Betting (poker)
- Poker variants
- Online poker
- Ring game
- Poker tournament

## Notes

1. ^ Robert's Rules of Poker by Bob Ciaffone is a widely referenced set of poker rules.
2. ^ World Series of Poker Official Rules
3. ^ State Law Summary
  4. ^ Florida Raises Poker Stakes (A Little) article in Card Player Magazine by I. Nelson Rose
5. ^ Poker Tournaments in Bars, Clubs, Online ... Everywhere **by I. Nelson Rose**  
**Categories:** Poker gameplay and terminology

## Rake

The *rake* is the scaled commission fee taken by a casino operating a poker game. It is generally 5-10% of the pot in each poker hand, up to a predetermined maximum amount, but not only can this percentage be anything, there are other non-percentage ways for a casino to take the rake, plus other means for a casino to earn revenue from players (e.g. serving meals). Poker is a player versus player game and the house does not wager against

its players (unlike blackjack or roulette) so this fee is the principal mechanism to generate revenues.

It is primarily levied by an establishment which supplies the necessary services for the game to take place. In online poker it covers the various costs of operation such as support, software and personnel. In traditional brick and mortar casinos it is also used to cover the costs involved with providing a dealer for the game and the physical building in which the game takes place.

The rake is often referred to as the "hidden player" because in most poker games it is a significant drain on player profitability.

## Contents

- 1 Mechanism
- 2 Legality
- 3 See also

## Mechanism

There are three predominant types of rake which are applied depending upon the format of poker game being played.

During ring games the percentage rake is taken by the dealer based on the amount of money being wagered by the players. In a live casino, the dealer manually removes chips from the pot while the hand is being played and sets them aside to be dropped into a secure box after completion of the hand. Online, the rake is taken automatically by the game software. Some software shows the rake amount next to a graphical representation of the dealer and takes it incrementally between the rounds of betting, whereas other software programs wait until the entire hand is over and then takes it from the pot total before giving the rest to the winner of the hand.

The second type of rake is "time collection", or "table charge", where each player pays a set fee for playing in a ring game, typically every half hour, but another method could be a monthly subscription fee at an online site.

The third type of rake is an entrance fee taken when entering a poker tournament.

## Legality

In all known legal jurisdictions taking a rake from a poker table is explicitly illegal if the party taking the rake does not have the proper gaming licences and/or permits. The laws of many jurisdictions are written in such a manner that they do not prohibit the playing of poker for money at a private dwelling, so long as nobody is taking a rake.

## See also

- Vigorish

**Categories:** Poker gameplay and terminology

## Ring game

*Ring games*, also called *cash games* or *live action games*, are poker games played with "real" chips and money on the line, usually with no predetermined end time. In contrast, a poker tournament is played with tournament chips (worth nothing outside the tournament) with a definite end condition (usually, only one player left).

Players may freely buy into or cash out of a ring game between hands. However, it is normally prohibited for a player to remove a portion of his or her chips from the table. This is known as "going south". For example, if a player buys in for \$100, then wins \$100 (for a total stack of \$200), the player may not remove the original \$100 buy-in.

One difference between tournaments and cash games is that the blind/ante structure of tournaments increases periodically over the course of the tournament, whereas the blind/ante structure of cash games remains constant. Another difference between the tournaments and cash games is that a tournament sticks with a predetermined style of poker, and cash game players, depending on house rules, may have the option of playing other types of card games. Some online cash games offer a variety of choices limited only by the game software, but do not offer all the possible more obscure games, like H.O.R.S.E or other mixed games, that can be played in-person.

In "no limit" poker ring games, some cardrooms have a maximum buy-in for ring games that prevents players from buying a chip stack size advantage. In limit poker games, there is seldom a maximum buy-in because betting limits on each hand already limit the advantage of having a larger chip stack.

In a casino, a rake is usually taken from a pot if the player is in a hand while a flop is shown.

An example of a ring game is broadcast on the United States television network GSN as "High Stakes Poker".

### See also

- Poker jargon
- Poker tournament
- Public cardroom rules (poker)

**Categories:** Poker gameplay and terminology

## River

The *river* is the final card dealt in a poker hand, to be followed by a final round of betting and, if necessary, a showdown. In Texas Hold'em and Omaha Hold'em, the river, also called *fifth street*, is the fifth and last card to be dealt to the board, after the flop and turn. In Seven-card stud the river is the final downcard dealt to each player, although in certain circumstances the river is dealt as a face-up community card.

The river can change the fortune of a game by delivering one player a card which they need to beat another player's already completed hand. A player losing the pot due only to the river card is said to have been 'rivered' or 'drowned at the river'. Chancing the game on the river card is called 'living by the river', because of the dangers involved.

## See also

- Poker jargon
- Flop (poker)
- Turn (poker)

**Categories:** Poker gameplay and terminology

## Rollout

*Rollout* or *roll 'em out* is poker jargon used for a game phase in certain poker variants. It is often incorrectly called "roll your own", to which it has similarities but is fundamentally different from.

Poker games with a rollout phase resemble stud poker but have significantly different strategies, because players generally receive all of their cards up front (sometimes with a draw phase), and know the final value of their hand in early betting rounds. They resemble stud poker only in that cards are revealed to other players one at a time for each betting round.

There are the same three variations on the idea as with roll your own, depending on when players are allowed to choose which card to reveal. They can either be forced to arrange the order of their cards before any betting begins ("choose before"), or they can be allowed to choose cards in later rounds based on information found in earlier rounds ("choose after"). In the latter case, the revealing can be made simultaneously or in turn.

In the game of *show five*, for example, each player is dealt seven cards before any betting begins, and each of the game's five betting rounds begins with the players simultaneously revealing one of their cards ("simultaneous choose-after rollout"). Rollout games are frequently played high-low split, and players choose which cards to reveal in order to delay as long as possible revealing which half of the pot they intend to win.

**Categories:** Poker gameplay and terminology | Poker variants

## Rounder

The term "*rounder*" can mean several things.

A *rounder* is a skilled card shark who makes his/her living entirely at playing cards. This is the most common use of the word.

The term "rounder" carries a certain respect amongst card players, as they know anyone with that title knows their way around a table and is a person to be taken seriously, unlike the opposite of a rounder, a "fish." The term sometimes also implies a player making a living by "hustling" less experienced players in games during their "rounds".

Some noted rounders include Doyle Brunson, Amarillo Slim, and Sailor Roberts. A movie about poker titled *Rounders* was made in 1998, starring Matt Damon and Edward Norton.

## Alternative meanings

- A railroad man who worked at a roundhouse, a building shaped as a partial circle where steam locomotives were stored and serviced. The locomotives were put in position via a turntable, a special track built on a bridge-like structure that turned about a central axis; each stall of the roundhouse had a track that ran to the edge of the turntable, and the turntable track was lined up with a stall track for the locomotive to move into. The turntable was sometimes rotated by an engine, but often was moved manually; the men who turned the table were known as "rounders."
- A Methodist preacher travelling a circuit, more commonly referred to as a *circuit rider*.
- A person who makes the rounds of prisons or bars; a habitual criminal or drunkard.
- A score in a game of rounders.

**Categories:** Poker gameplay and terminology

## Rule variations

**Rule variations *in poker*.**

## Overview

There are many types of poker games. While poker was originally played with each player receiving five cards and only one betting round, it has expanded to include hundreds of variants. Currently, the most popular one is Texas Hold'em, but other variants are very popular.

Here are some common rule variations:



1. High-low split: the highest and lowest hands split the pot. Generally there is a qualifier for the low hand. For example, the low hand must have 5 cards with ranks of 8 or less. In most high-low games the usual rank of poker hands is observed, so that an unsuited broken straight (7-5-4-3-2) wins low (see Morehead, Official Rules of Card Games). In a variant, based on Lowball, where only the low hand wins, a straight or a flush does not matter for a low hand. So the best low hand is 5-4-3-2-A, suited or not.
2. Players can pass cards to each other. An example of this would be Anaconda.
3. 'Kill game'. When a fixed limit game is played and a player wins two pots in a row, the stakes are doubled.
4. Wild cards are added. This can range from simply making deuces wild to the wild 7-stud variant of baseball.
5. A twist round in which players can buy another card from the deck. If a player does not like their card, they can purchase another one by adding money to the pot. This is sometimes called a "Tittle."
6. A stripped deck may be used. Poker was first played with only 20 cards. In the spirit of poker history, players will sometimes only play with a stripped deck. A popular poker game in Spain is played with cards 8-A. It is played similar to hold'em, except that one card is dealt at a time and you must use both of your hole cards.
7. Each player is dealt a certain amount of cards. Then there is usually a number of community cards that all players can use. When forming a poker hand a player may use cards from his hand and the "community cards". Examples of community card poker include Texas hold 'em and Omaha hold 'em

## See also

- List of poker variants

**Categories:** Poker gameplay and terminology | Poker variants

## Showdown

In all poker games, if more than one player remains after the last betting round, remaining players expose and compare their hands to determine the winner or winners. This is called the *showdown*.

To win any part of a pot, a player must show all of his cards faceup on the table, whether they were used in the final hand played or not. Cards speak for themselves: the actual value of a player's hand prevails in the event a player mis-states the value of his hand.[1]

Because exposing a losing hand gives information to an opponent, players may be reluctant to expose their hands until after their opponents have done so and will muck their

losing hands without exposing them. Robert's Rules of Poker state that the last player to take aggressive action by a bet or raise is the first to show the hand, otherwise the first player to the left of the dealer button is the first to show the hand. If there is a side pot, players involved in the side pot should show their hands before anyone who is all-in for only the main pot. To speed up the game, a player holding a probable winner is encouraged to show the hand without delay. Any player who has been dealt in may request to see any hand that is eligible to participate in the showdown, even if the hand has been mucked.[1]

There has been a recent trend in public cardroom rules to limit the ability of players to request to see mucked losing hands at the showdown. Specifically, some cardrooms only grant the right to view a mucked losing hand if the requesting player articulates a concern about possible collusion. Under such rules, players do not have an inherent right to view mucked hands.[2][3][4][5]

Because the act of folding a losing hand rather than showing it down is so common, some players can take advantage of others who do this with a rare play called a call-bluff. For example, if you know that a player always folds rather than showing his hand if he was bluffing, you might call his last bet even with a hand inferior to the one you suspect him of bluffing with, expecting that he will simply fold before he sees that you don't actually have him beat.

## References

1. ^ a b Robert's Rules of Poker by Bob Ciaffone is a widely referenced set of poker rules.
2. ^ Showdown Shame - Part 1 article in Card Player Magazine by Bob Ciaffone.
3. ^ Showdown Shame - Part 2 article in Card Player Magazine by Bob Ciaffone.
4. ^ Showdown Shame - Part 3 article in Card Player Magazine by Bob Ciaffone.
5. ^ 'I Want to See That Hand': Several cardrooms redefine a rule **article in Card Player Magazine by Mike O'Malley.**

**Categories:** Poker gameplay and terminology

# Slow play

## Contents

- 1 Relationship between slow playing and bluffing
- 2 Check raising as a slow play
- 3 Fishing for the overcall
- 4 See also
- 5 References

*Slow playing* (also called *sandbagging* or *trapping*) is deceptive play in poker that is roughly the opposite of bluffing: betting weakly or passively with a strong holding rather than betting aggressively with a weak one. The flat call is one such play. The objective of the passive slow play is to lure opponents into a pot who might fold to a raise, or to cause them to bet more strongly than they would if the player had played aggressively (bet or raised). Slow playing sacrifices protection against hands that may improve and risks losing the pot-building value of a bet if the opponent also checks.

Sklansky defines the following conditions for profitable slow plays:[1]

- A player must have a very strong hand.
- The free card or cheap card the player is allowing to his opponents must have good possibilities of making them a second-best hand.
- That same free card must have little chance of an opponent a better hand or even giving them a draw to a better hand on the next round with sufficient pot odds to justify a call.
- The player must believe that he will drive out opponents by showing aggression, but can win a big pot if the opponents stay in the pot.
- The pot must not yet be very large.

### *Seven-card stud example*

In a Seven-card stud game, Ted's first three cards are all fours. Alice with a king showing bets first, Ted raises and Alice calls. On the next round, the Alice catches another king, and Ted miraculously catch the last four (making four-of-a-kind). Ted suspects Alice has two pair or three kings, and Alice suspects that Ted has two pair or three fours. Alice bets again, and Ted just flat calls. Ted decides to just call for next round or two, and maybe even check if Alice doesn't bet, rather than raising, for several reasons. Ted's hand is so strong that the chance of getting beaten is negligible, so he doesn't need protection. If Alice just has two pair and Ted acts strongly, Alice may think Ted has three fours and fold if she doesn't improve. By allowing Alice to continue for smaller stakes, Ted hopes that Alice will improve to a very strong (but second best) hand that will induce her to bet, raise, or at least call in the later betting rounds.

## Relationship between slow playing and bluffing

Against observant opponents, the frequency of bluffing affects the effectiveness of slow playing, and vice versa. If a player's table image is that of an aggressive bluffer, slow playing is less important because his opponents will be more willing to call his usual bets and raises. Similarly, if a player is perceived as a "trappy" player (uses frequent slow plays), his bluffs are less likely to be respected because his opponents expect him to slow play his strong hands.[2]

## Check raising as a slow play

A check-raise is not necessarily a slow play. Often, the purpose of a check-raise is to drive out opponents from a pot, which is the opposite of the goal of a slow play.[1] However, within the context of a single betting round, check-raising can be employed as a slow play.

### *Draw poker example*

Alice, Bob, Carol, and David are playing draw poker. After anteing, Alice starts with a pair of aces, and opens the betting for \$2. Bob raises an additional \$2, bringing the bet to \$4. Carol folds. David calls the \$4, and Alice puts in an additional \$2 to match the raise. Drawing three cards, she receives another ace, and a pair of fives. Since her aces-full is almost certain to be unbeatable, it does not need the protection of a bet. Also, Bob earlier raised, and David called a raise, so they likely have strong hands and one of them will bet if Alice doesn't. Finally, since Bob and David earlier showed strength, and they know that Alice knows this, Alice betting into them would be seen as a bold move likely to scare one or both of them off, especially if they weren't as strong as they seem. Alice decides conditions are right for a slow play: Alice checks. As she hoped, Bob bets \$2. David thinks for a minute, then calls the \$2. Alice now springs the trap and raises \$2. Bob calls the additional \$2, and David (who now realizes that he is probably beaten) folds. Bob reveals three sixes, and surrenders the pot to Alice. If Alice had just bet her hand on the second round, it is likely that Bob would just have called and David may or may not have called, earning Alice \$2 to \$4 on the second round. But with the slow play, she earned \$6.

Even in games (such as California lowball) where the check-raise is not allowed, one can make other sandbagging plays such as just flat calling instead of raising with a very strong hand and then later raising.

## Fishing for the overcall

Fishing for the overcall occurs when the last card a player is dealt makes him a very strong hand, an opponent in front of him bets, and there are more opponents yet to act behind him. While the player might normally raise with his hand, just calling may encourage the opponents behind him to overcall when they would have folded to a raise. For this play to be used profitably, one or more conditions like the following must be met:

- The original bettor is all-in and therefore has no money to call a raise.

- The player is confident that the original bettor was bluffing and would not call a raise.
- There are several opponents yet to act. If there is only one opponent yet to act, then getting the overcall would gain no more money than raising and having the initial bettor call.
- The opponents are likely to overcall the initial bet, but not a raise. This play sacrifices the profit that might have been made from opponents who would have overcalled a raise.

A common example of fishing for overcalls occurs in High-low split games like Omaha hold 'em. If John is confident that Mary is betting a high hand, then John might flat call with his low hand to fish for overcalls rather than make it more difficult for opponents to call. If John were to raise, he and Mary would gain no profit at all if no other opponents called. [3]

## See also

- Poker jargon
- Poker strategy
  - Aggressive plays
  - Bluffing plays
  - Check-raise plays
  - Defense plays
  - Drawing plays
  - Isolation plays
  - Position plays
  - Protection plays
  - Stealing plays

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1. ^ **a b** David Sklansky (1987). The Theory of Poker. Two Plus Two Publications. ISBN 1880685000.
2. ^ Dan Harrington and Bill Robertie (2005). Harrington on Hold'em: Expert Strategy For No-Limit Tournaments; Volume II: Strategic Play. Two Plus Two Publications. ISBN 1880685353.
3. ^ Sharing in high-low games **by Steve Badger**  
**Categories:** Poker gameplay and terminology

# Split

In poker it is sometimes necessary to divide the pot among two or more players rather than awarding it all to a single player. This can happen because of ties, and also by playing intentional split-pot poker variants (the most typical of these is high-low split poker, where the high hand and low hand split the pot).

To split a pot, one player uses both hands to take the chips from the pot and make stacks, placing them side by side to compare height (and therefore value). Equal stacks are placed aside. If there is more than one denomination of chip in the pot, the largest value chip is done first, and then progressively smaller value chips. If there is an odd number of larger chips, smaller chips from the pot can be used to equalize stacks or make change as necessary. Pots are always split down to the lowest denomination of chip used in the game. Three-way ties or further splits can also be done this way.

After fully dividing a pot, there may be a single odd lowest-denomination chip remaining (or two odd chips if splitting three ways, etc). Odd chips can be awarded in several ways, agreed upon before the beginning of the game. The following rules are common:

- If playing a high-low split game and dividing a pot between the high and low hands, always award the odd chip to the high hand.
- If splitting a pot because of tied hands, award the odd chip to the hand that contains the highest-ranking single card, using suits to break ties if necessary (clubs ranking the lowest, followed by diamonds, hearts, and spades as in bridge).
- (Variation) Between tied hands, award the odd chip to the first player in clockwise rotation from the dealer. (Note that in a casino stud game with a house dealer and no "buck" this gives an unfair advantage to players on the dealer's left, so the high card by suit method is preferred).
- (Variation) Leave the odd chip as an extra ante for the next deal. This is common in home games.

Sometimes it is necessary to further split a half pot into quarters, or even smaller portions. This is especially common in community card high-low split games such as Omaha hold'em, where one player has the high hand and two or more players have tied low hands. Unfortunate players receiving such a fractional pot call it being quartered. When this happens, an exception to the odd chip rules above can be made: if the high hand wins its half of the pot alone, and the low half is going to be quartered, the odd chip (if any) from the first split should be placed in the low half, rather than being awarded to the high hand.

**Categories:** Poker gameplay and terminology

# Steal

In poker, the term *steal* is often used as merely a synonym for bluff, but there is a more specific use of the term which is also called an "ante steal" or "blind steal" (depending on whether the game being played uses antes or blinds).

To steal is to raise with a hand less valuable than what might normally be considered a raising hand, with the hope that the few players remaining will not have a hand worth calling the raise, thereby winning the antes or blinds without further action.

This play is used either in late position after several people have folded, or when the game is short-handed. Steals happen most often in tournaments due to the escalating ante/blind structure.

While steals like this don't win much money per hand, they can accumulate to considerable profit if the players to your left are passive enough to not contest many of your steals. Of course, skilled players will recognize repeated steal plays and frequently reraise for defense.

## See also

- Poker jargon
- Poker strategy
  - Aggressive plays
  - Bluffing plays
  - Check-raise plays
  - Defense plays
  - Drawing plays
  - Isolation plays
  - Position plays
  - Protection plays
  - Slow plays

**Categories:** Poker gameplay and terminology

# Stripped deck

A *stripped deck* is a set of playing cards from which cards have been removed. This kind of deck is used in certain poker variants, and the cards that are removed are usually low-ranking ones. For example, the Australian game of Manila uses a 32-card deck in which all cards below the rank of 7 are removed, and Mexican stud is played with the 8s, 9s, and 10s removed from the deck (and a joker added). This may require adjusting hand values: in both of these games, a flush ranks above a full house, because having fewer cards of each suit available makes flushes rarer.

A hand such as 6-7-J-Q-K plays as a straight in Mexican stud, skipping over the removed ranks. Some places may allow a hand such as 10-9-8-7-A to play as a straight (by analogy to a wheel) in the 32-card game, the A playing low and skipping over the removed ranks (although this is not the case in Manila). Finally, the relative frequency of straights versus three of a kind is also sensitive the deck composition (and to the number of cards dealt), so some places may play that trips beat a straight, but the difference is small enough that this complication isn't necessary for most games.

Five-card stud is often played with a stripped deck as well, usually the same 32-card deck as Manila (with all cards of rank 2 through 6 removed). In lively home games it might work better to only strip three ranks (2s through 4s) with seven or eight players; with only two or three players 7s and 8s could be stripped as well, leaving the same 24-card deck used in euchre. In any of these cases, a flush should rank above a full house (in the 24-card case it's actually more rare than four of a kind, but is rarely played that way). It should be noted that stripped deck five-card stud is a game particularly well-suited to cheating by collusion, because it is easy for partners to signal a single hole card and the relative value of knowing the location of a single card is higher than with a full deck.

**Categories:** Poker gameplay and terminology

## Suited connectors

*Suited connectors* is a poker term referring to pocket cards which are of the same suit and consecutive in rank. Example: A`2`, Qe Je, 5f 4f. In Texas hold'em, suited connectors play well against multiple players when they can see the flop cheaply. A player will generally not raise with them, because raising usually causes a few players to fold, decreasing the pot odds in the event of a straight or flush draw on the flop. However, a hand like ace-king suited might do well to raise because the cards will also work well if they pair, which is the more likely possibility, so the pot odds are less important. The probability of drawing suited connectors is 3.92%, and the odds are 24.5:1.

Another definition of suited connectors includes any two suited cards which, together, can make a straight. Example: 2`4`, Qe 9e, 7f 9f. Hands such as 2`4` are also known as one gap hands.

**Categories:** Poker gameplay and terminology

## Table stakes

In poker, *table stakes* refers to the maximum a player can bet and possibly lose during the course of a single hand. It is the money he or she has on the table at the beginning of that hand. This is in contrast to the classic poker notion from the movies of a player "betting the wagon wheels" when a good hand comes along.

*See the main article at [poker table stakes rules](#).*



In business, *Table Stakes* also refers to the minimum entry requirement for a market or business arrangement. It can refer to pricing, cost models, technology, or other capability that represents a minimum requirement to have a credible competitive starting position in a market or other business arrangement. For example, if you want to be a Wireless service provider the table stakes are the basic features you need to have in order to be in that business to achieve foundation capability - Network, Handsets, a data service, a mail server etc. Beyond that real competitive advantage comes from additional nimbleness and cost or product differentiation.

## See also

- Betting (poker)

**Categories:** Poker gameplay and terminology

## Tell

In poker, a *tell* is a detectable change in a player's behavior or demeanor that gives clues to that player's assessment of their hand. Behaviors that may exhibit tells include leaning forward or back, placing chips with more or less force, fidgeting, changes in breathing or tone of voice, facial expressions, direction of gaze or actions with the cards, chips, cigarettes, or drinks. A player gains an advantage if he observes another player's tell, particularly if the tell is unconscious and reliable. Some players may fake tells, hoping to induce their opponents into making mistakes based on the false tell.

A player's tells only give information about that player's own assessment of their cards, and thus is only reliable in the context of a player who has accurately assessed their own hand. An unskillful player may reliably give information in a tell, but that information may be an unreliable guide to the player's hand if the player cannot assess the strength of a hand in a particular game.

Tells may be common to a class of players or unique to a single player. Examples of well known tells include:

- A player who believes his hand to be weak, hoping to bluff, may throw his chips into the pot forcefully and with a direct gaze at a player he hopes to discourage from calling.
- Shaking hands, flush face or racing pulse may be the result of adrenaline caused by a player's excitement about a strong hand.
- Disinterest, leaning back, casual conversation or otherwise acting meek or mild may mean the player is attempting to disguise a strong hand.
- Forceful, aggressive, or loud demeanors or otherwise acting with confidence may mean the player is attempting to disguise a weak hand.

David Mamet's 1987 movie *House of Games* includes an interesting discussion and visual reference to tells as an essential part of the plot. The movie *Rounders* contains an even more

subtle use of strategy: at one point, "Mike" discovers a tell in his opponent (that he eats cookies in a particular way after he has bet a very strong hand), and after using it once, he reveals to the opponent that he has this tell; although this eliminates the usefulness of the tell itself, it upsets his opponent so much that it affects his later play.

## See also

- Poker strategy

## References

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- 

**Categories:** Poker gameplay and terminology

# Tilt

*Tilt* is a poker term for a state of mental confusion or frustration in which a player knowingly adopts a sub-optimal, over-aggressive strategy.

Placing an opponent on tilt or dealing with being on tilt oneself is one of the most important aspects of poker. It is a relatively frequent occurrence, due to frustration, animosity against other players, or simple bad luck. Experienced players recommend learning to recognize that one is experiencing tilt and to avoid allowing it to influence one's play. However, putting one's opponents on tilt is a remarkably effective way to win at the poker table, albeit one that isn't going to win many friends.

## Being "on tilt"

The most common way to wind up on tilt is to be the victim of a bad beat, or being defeated in a particularly public and humiliating fashion. For example:

1. Folding to a large bet only to have your opponent turn over a horrible hand (being shown a bluff).
2. Even worse: being bluffed by a small bet (a post oak bluff).

3. Having an opponent "suck out", or catch a miracle card late in the hand (an unlikely out-draw).
4. Having what you think is a dominating hand be bested by an even more powerful hand that you never saw coming.

All of these can upset the mental equilibrium considered essential for optimal poker judgement. Another common way to wind up on tilt is through basic annoyance at the behavior of the others at the poker table. Excessive rudeness (or lewdness), being heavily intoxicated at the table, and otherwise poor table etiquette are all common ways that other players can begin to wear on your nerves.

The most important thing to remember about being on tilt is to recognize when you're beginning to become on tilt. If you don't recognize the situation and take measures to alleviate it (changing tables, several deep breaths, imagining beating the snot out of the player at the table), you will quickly wind up broke and only more frustrated than you were when you started going on tilt.

For the beginning player, the elimination of tilt is considered to be the most essential improvement that can be made in play (for instance in the strategic advice of Mike Caro and especially, Lou Krieger). Many advanced players (after logging thousands of table-hours) claim to have outgrown "tilt" and frustration, although other poker professionals admit it is still a "leak" in their game.

## **Putting others "on tilt"**

Any player with a decent amount of play-time under their belts can beat a table filled with bet-crazy "maniacs" who will go all-in with any two cards. However, winning at a poker table that has eight fifty year-old men who only bet or raise if they have two face cards and fold under the slightest amount of pressure is much more difficult. Putting a player on tilt infuriates them to the point where they will call or raise almost any bet made.

The act of putting someone on tilt may not pay off in the short run, but if some time is put into practicing it, a player can quickly become an expert at "tilting" other players (with or without bad manners). In theory, the long-run payoff of this tactic is a positive expectation, although it has been observed (e.g. by David Sklansky) that a more profitable strategy is likely to be superior table selection.

Some of the more common methods of putting a table on tilt include:

1. Playing junk hands that have only a slight chance of winning in the hope of sucking out on the turn or the river and delivering a bad beat (this can be an enjoyable occasional style which will make the table's play "looser", and has been 'perfected' by players such as Daniel Negreanu in low and middle-limit play.)
2. Victimizing certain individuals at the table, (which is often considered a more old-fashioned tactic, identified with 1970s "verbal" experts such as Amarillo Slim.)
3. Pretending to be drunk, i.e. hustling, excellently demonstrated by Paul Newman vs. Robert Shaw in *The Sting* (although his technique included cheating).

4. Constant chattering, making weird noises and motions whenever you win a hand, or other erratic behaviour is a “tilting” or “loosening” approach first discussed by Mike Caro.

5. Taking an incredibly long time to announce and show your hand at the showdown. (Such deliberate breaches of etiquette have the side effect of slowing play and risking barring, thereby limiting the earnings of the expert player. For this, and other social reasons, such tactics are mostly associated with the novice.)

All of the above have been recommended as methods of upsetting the other players at the table, with the intention of having them betting into your winning hands, and playing sub-optimally.

**Categories:** Poker gameplay and terminology

## Turn

The *turn*, or fourth street, in poker is the fourth of five cards dealt to the board, constituting one face-up community card that each of the players in the game can use to make up their final hand.

Typically found in community card poker games like Texas hold 'em and Omaha hold 'em, the turn follows the completion of the second round of betting after the flop, and is immediately followed by a third round of betting which concludes with the river.

### See also

- Poker jargon
- Flop (poker)
- River (poker)

**Categories:** Poker gameplay and terminology

## Value

In poker, the strength of one's hand (that is, how likely it is to be the best according to the rules of the game being played) is often called its *value*, but discussions of poker strategy often use the term in a more specific sense to describe a type of bet: A bet "for value" is a bet made for the purpose of increasing the size of the pot, and which the player wants his opponents to call. This is in contrast to a bluff or a protection bet (though some bets may have a combination of these motives).

Most of the time, this is because the player believes his hand is valuable in the first sense, and he therefore wants his opponents to put money into the pot that he expects to win from them at showdown. In certain situations, though, even a drawing hand that is not currently

the best can value bet: For example, on the next-to-last betting round of a fixed limit game, if a player surmises that he has a 1-in-4 chance of being dealt a final card that will give him a winning hand, and there are six opponents remaining, he can bet for value even though he will lose three out of four times, because the one time he does win he will win more than three times the amount bet (so the bet earns money in the long run). This is still a value bet, because it is made hoping the opponents will call and build a bigger pot in anticipation of winning (even though the win is only statistical).

**Categories:** Poker gameplay and terminology

## Wild card

Poker games may contain one or more cards designated as *wild*. These may be jokers, or they may be normal ranked and suited cards pressed into wild card duty ("deuces wild" is a common variant). There are two rules in common use regarding wildcards: "fully wild" cards and the "bug".

A card that is fully wild can be designated by its holder as any card he chooses with no restrictions. Under this rule, for example, a hand with any natural pair and a wild card becomes three of a kind. The common rule in casinos is that a wild card plays as a bug, which is given the rank of ace unless designating it as a different card would complete a straight, flush, or straight flush. Under this rule, a hand such as K-K-Joker-5-2 is just a pair of kings (with an ace kicker), but any four same-suit cards with a bug make a flush, and a hand such as 7-Joker-5-4-3 makes a straight.

Two exceptions to standard poker practice sometimes seen in home games are the double-ace flush rule, and the natural wins rule. The latter rule states that between hands that would otherwise tie, the hand with fewer wild cards wins. This is not common in casinos and should be treated as an exception to standard practice (as is the double-ace flush).

There is a tendency among some players to regard wild cards as "impure" or treat wild card games as silly or amateurish. While it is certainly true that a game with too many wild cards can become so random that all skill is lost, the occasional use of wild cards is a good way to add variation to a game and add opportunities for skillful play. In particular, five-card draw is traditionally played with a joker in California (which plays as a bug), and also plays well with deuces fully wild. Seven-card stud plays well with one or two bugs, especially when played high-low split. Other games such as Texas hold 'em and Omaha hold'em do not play well with wild cards. For some players, the problem with wild-card games is that the winner is almost always the hand with the most wild cards, making the other cards irrelevant, and making skill less important.

Another issue with wild cards is that they distort the hand frequencies. In 5-card stud, the stronger hands are less frequent than the weaker hands; i.e., no pair is most common, followed by one pair, two pair, three of a kind, etc. When you add wild cards, the stronger hands gain frequency while the weaker hands lose frequency. For example, if you have a pair and a wild card, you will always choose three of a kind rather than two pair. This causes three of a kind to be more common than two pair.

**Categories:** Poker gameplay and terminology

## **Poker television programs**

*Poker television programs* have been extremely popular in the last several years, especially in North America and Europe. This has especially become the case since the invention of the "pocket cam" in 1997 (and its first use in the United States in 2002), wherein viewers at home can see what each player has.

### **History**

Poker has been appearing on television somewhat regularly since the late-1970s. In the United States, ESPN started airing the World Series of Poker (WSOP) as an annual one hour event around this time. For many years, the coverage was less than robust because viewers at home could not see what cards the players had. Instead, the coverage essentially involved the commentators guessing what cards the players had.

This all changed in 1997 with the introduction of the hole cam in Europe and later introduction into the United States in 2002. The hole cam was patented by WSOP bracelet winner Henry Orenstein and first used in the Late Night Poker television series. It was used again in the inaugural Poker Million tournament in 2000 which boasted the attraction of the first £1,000,000 poker game on live television.

The usage of the hole cam expanded from Europe to North America in 2002 when it was first used in the coverage of the 2002 WSOP. The World Poker Tour (WPT) was formed later that year and began airing in 2003, attracting numerous new poker fans and leading to increased numbers of entrants to live poker tournaments and increased investment in online poker.

Since the introduction of the hole cam, poker has become almost ubiquitous in the US and Europe. Whilst poker started on sports channels such as ESPN and Sky Sports has expanded to such "non traditional" networks as Bravo and GSN. Most of the shows that shown are poker tournaments with the exception of GSN's "High Stakes Poker", which shows a never ending cash game. All of the poker programs make heavy use of the aforementioned pocket cam plus a general format of a "straightman" and a "comedian" type, often a poker pro.

Poker's growth in Europe led to the creation of two FTA channels: The Poker Channel and Pokerzone. Both began broadcasting during 2005.

## **Poker tournaments**

*A poker tournament* is a tournament at which the winners are decided by playing poker, usually a particular style of poker.

Contrast this to a ring game, where the game is ongoing with no formal structure to determine a single winner in a certain length of time.

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- 1 Entry fees and prizes
- 2 Betting format
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## Entry fees and prizes

In a typical tournament, a player pays a fixed entry fee (called a buy-in) and receives, in return, a certain quantity of in-game currency, called play money, invariably represented in the form of poker chips. Typically, the amount of play money given each player is an integer multiple of the buy-in. Only this in-game "play" money can be used in the game, real money cannot. Additionally, real and play money cannot be interchanged at any time. Some tournaments, however, offer the option of a re-buy or buy-back; this gives players the option of purchasing more chips. In some cases, re-buys are conditional (for example, offered only to players low on or out of chips) but in others they are unconditional, or offered to all players. When a player has no chips remaining (and has exhausted or declined all re-buy options, if any are available) he or she is eliminated from the tournament.

In most tournaments, the number of players at each table is kept even by moving players, either by switching one player or (as the field shrinks) taking an entire table out of play and distributing its players amongst the remaining tables. A few tournaments, called shoot-outs, do not do this; instead, the last player (sometimes the last two or more players) at a table moves on to a second or third round, akin to a single-elimination tournament found in other games.

The prizes for winning are usually derived from the entry fees, though outside funds may be entered as well. For example, some invitational tournaments do not have entry fees and fund their prize pools with sponsorship revenue and/or gate receipts from spectators. (These tournaments are referred to as freerolls.) Play continues, in most tournaments, until all but one player is eliminated, though in some tournament situations, especially informal ones, players have the option of ending by consensus.

Players are ranked in reverse chronological order — the last person in the game earns 1st place, the second-to-last earns 2nd, and so on. This ranking of players by elimination is unique amongst games, and also precludes the possibility of a tie for first place, since one player alone must have all the chips to end the tournament. (Ties are possible for all other places, though they are rare since the sole tiebreaker is the number of chips one has at the start of the hand in which one is eliminated.)

Sometimes tournaments end by mutual consensus of the remaining players. For example, in a ten-person, \$5 game, there may be two players remaining with \$29 and \$21, respectively, worth of chips. Rather than risk losing their winning, as one of them would if the game were continued, these two players may be allowed to split the prize proportional to their in-game currency (or however they agree).

Prizes are awarded to the winning players in one of three ways:

- Fixed: Each placing corresponds to a certain payoff. For example, a ten-person, \$20 buy-in tournament might award \$100 to the first-place player, \$60 for second-place, \$40 for third, and nothing for lower places.
- Proportional: Payouts are determined according to a percentage-based scale. The percentages are determined based upon the number of participants and will increase payout positions as participation increases. As a rule, roughly one player in ten will 'cash', or make a high enough place to earn money. These scales are very top-heavy, with the top three players usually winning more than the rest of the paid players combined.

Tournaments can be open or invitational. The World Series of Poker, whose final event (a \$10,000 buy-in no limit Texas Hold 'Em tournament) is considered the most prestigious of all poker tournaments, is open.

Multi-table tournaments involve players playing simultaneously at dozens or even hundreds of tables. Satellite tournaments to high-profile, expensive poker tournaments are the means of entering a major event without posting a significant sum of cash. These have significantly smaller buy-ins, usually on the order of one-tenth to one-fiftieth the main tournament's buy-in, and can be held at various venues across the country and, more recently, on the Internet. Top players in this event, in lieu of a cash prize, are awarded seats to the main tourney, with the number of places dependent on participation. Chris Moneymaker, who won the 2003 World Series of Poker, was able to afford his seat at this event by winning an Internet tournament with a \$39 buy-in. Greg Raymer, 2004 World Series of Poker champion, acquired his seat via a \$165 Internet tournament.

## **Betting format**

Betting, in tournaments, can take one of three forms:

- In a structured (fixed limit) betting system, bets and raises are restricted to specific amounts, though these amounts typically increase throughout the tournament. For example, for a seven-card stud tournament with the stakes at 10/20, raises would be \$10 in the first three rounds of betting, and \$20 in the latter rounds.
- Semi-structured betting provides ranges for allowed raises. Usually, in this format, one may not raise less than a previous player has raised. For example, if one player raises \$20, it would be illegal for another player to raise an additional \$5. Pot limit is a semi-structured format in which raises cannot exceed the current size of the pot.



- Unstructured betting, usually called no limit. While blinds, antes, or bring-ins are fixed, players are free to bet as much as they wish, even early in a round of betting. To bet all of one's chips (risking one's tournament life, in the event of losing the hand) is to go all-in. In no-limit tournaments, players will sometimes take this risk even early in the betting; for example, in some no-limit Texas Hold 'Em tournaments, it is not uncommon for players to bet "all-in" before the flop.

The betting structure is one of the most defining elements of the game; even if other aspects are equivalent, a fixed-limit version and its no-limit counterpart are considered to be very different games, because the strategies and play styles are very different. For instance, it is much easier to bluff in a no-limit game, which allows aggressive betting, than in a fixed-limit game. No-limit games also vary widely according to the proclivities of the players; an informal, emergent, betting structure is developed by the players' personal strategies and personalities.

The stakes of each round, as well as blinds, bring-ins, and antes as appropriate per game, typically escalate according either to the time elapsed or the number of hands played.

## **Types of poker**

While some tournaments offer a mix of games, like H.O.R.S.E. events which combine Hold'em, Omaha, Razz, Stud and Stud Eight or Better and Dealer's Choice events, at which one may choose from a similar menu of games, most tournaments feature one form of stud or community card poker, such as seven-card stud, seven card high-low stud, Omaha Hold 'em or Texas Hold 'em. Both Omaha and Texas Hold'em tournaments are commonly offered in fixed-limit, pot limit, and no limit forms.

## **Tournament venues**

Informal tournaments can be organized by a group of friends; for example, most colleges feature poker tournaments. Casinos and online gaming sites often offer daily tournaments.

However, these are not the only venues. Poker cruises offer tournaments at sea. The 2005 World Series of Poker primarily took place in the conference hall of the Rio Hotel in Las Vegas.

## **Major tournaments**

The two largest and most well-known tournaments are the World Poker Tour championship event and the World Series of Poker, both held in Las Vegas, Nevada. The World Series has traditionally been featured on ESPN.

The 2005 World Series of Poker was the first held outside of Binion's Horseshoe Casino, though the final few days of the main event were held in the legendary Benny's Bullpen.

Future tournaments will be held at one of the Harrah's Entertainment properties; 2005 saw the Rio as primary venue.

Arguably the most publicised European tournament is the Poker Million, which began in 2000 on Sky Sports, following on from the success of the Late Night Poker television show.

In addition to these events, there are other major tournaments throughout the year. The World Poker Tour broadcasts a series of open tournaments throughout the U.S. and Caribbean with buy-ins from \$5,000 to \$15,000, as well as a European event with a €10,000 buy-in. Some of these events are stand alone tournaments like the Caribbean Poker Adventure, but most are held in conjunction with a tournament series being held at the host casino, like the Commerce Casino's LA Poker Classic, the Reno Hilton's World Poker Challenge and the Bicycle Casino's Legends of Poker.

Atlantic City hosts The United States Poker Championship at the Trump Taj Mahal casino. The Plaza casino in Las Vegas hosts the Ultimate Poker Challenge, a series of regular tournaments that culminates in a \$10,000 buy-in event.

## See also

- Tournament director
- Poker jargon
- Ring game
- Public cardroom rules (poker)

**Categories:** Poker gameplay and terminology

## Satellite tournament

A *satellite tournament* is either a minor tournament or event on a competitive sporting tour or one of a group of such tournaments that form a series played in the same country or region. The term is most commonly used in reference to minor professional or competitive junior tennis.

In professional tennis, satellite tournaments are typically organised by a country's national tennis association and overseen by the International Tennis Federation. They are played by players who are ranked outside the top few hundred by the Association of Tennis Professionals with a high enough national ranking. Prize money ranges from £1000 - £15000 for winning the tournament. Players successful at this level of pro tennis move on to play ATP Challenger Series or even top-flight ATP Tour events.

## Poker

A satellite tournament in poker is a qualifying event. Winners of these satellites usually win the buy-in fee to a larger, more prestigious tournament like the World Series of Poker Main Event.

**Categories:** Poker tournaments

## Tournament director

In the game of poker, the *tournament director* is the individual charged with running the poker tournament. The job encompasses many roles, the most public of which is typically announcing the phrase "shuffle up and deal!" at the beginning of the day.

Additionally, tournament directors perform such other tasks as adjudicating disputes between dealers and players and also among the players themselves. Tournament directors are (generally) employees of the casino that the tournament is being hosted at, although this varies. For example, Matt Savage has appeared at various made-for-tv tournaments such as "King of Vegas", which do not take place at his place of employment.

**Categories:** Poker | Poker gameplay and terminology | Poker tournaments

## World Poker Tour

The *World Poker Tour (WPT)* is a series of poker tournaments featuring most of the world's professional players. It was started by attorney/television producer Stephen Lipscomb who now serves as CEO of WPT Enterprises (WPTE), the firm that controls the World Poker Tour.

The tour had its debut season in the latter part of 2002 and early part of 2003, climaxing with the WPT Championship in April 2003 at the Bellagio Casino in Las Vegas, Nevada. The first season aired on the Travel Channel on American cable television in the spring of 2003. The show made its network debut on February 1, 2004 on NBC with a special "Battle Of Champions" tournament, which aired against CBS coverage of the Super Bowl XXXVIII pre-game show.

## Contents

- 1 Player of the Year
- 2 Results

The World Poker Tour is a collection of Texas hold 'em poker tournaments held internationally, but mainly in the United States. The television show has led to a boom in the table game across American homes, local casinos and poker rooms, and online. It is perhaps not surprising, therefore, that the key sponsors of the tour are casinos and online poker sites. The show, which is syndicated internationally, is co-hosted by World Series of Poker winner Mike Sexton, and actor Vince Van Patten. Former model Shana Hiatt served as the show host and sideline reporter in its first three seasons. Former newscaster Courtney Friel took over the host role for the fourth season, and Sabina Gadecki for the fifth.

While both Mike Sexton and Vince Van Patten give the impression that their commentary is "live" as events happen, most of the audio for the show is recorded in post-production, so the commentators can remark about the players' hole cards. This is due to the fact that many (but not all) of the WPT venues are prohibited by state regulations to allow camera feeds inside a gaming area. Consequently, the audio heard on the show broadcasts is a mix of audio recorded live, and audio commentary recorded in post-production.

First exemplified by the long-running World Series of Poker main event, a poker tournament gives each player an equal amount of chips to start, with colors representing different values. Play continues, typically over several days until one player has acquired all of the chips. When that occurs, that player has won the game and captures the grand prize, approximately 30-35% of the total prize pool. The resulting winner's check can exceed one million dollars. All other competitors finish with no chips, but win a portion of the prize pool according to the order in which they left the tournament. The last player to lose all of his chip-stack finishes in 2nd position, typically worth approximately 20% of the prize pool.

The drawing power of the WPT, like any poker tournament, is that anyone who can pay the "buy-in" (an amount ranging from \$5,000 to \$25,000) or win a "satellite" tournament is able to compete against the top professional players, such as Phil Hellmuth, Doyle Brunson, or the top 2004 tournament money and multi-WPT tournament winner, Daniel Negreanu.

Fans of the show find it interesting due to technical innovations such as the ability to see the players' hole cards through a small camera in front of them on the poker table (an innovation first seen on the UK programme Late Night Poker). Due to the success of the show, special programs, such as the "Hollywood Home Game", featuring celebrities playing for charity, and "Ladies Night", where six of the top women played against each other, were developed.

In 2004 the World Poker Tour created a Walk of Fame, inducting poker legends Doyle Brunson and Gus Hansen as well as actor James Garner.

Now in its fourth season of broadcast, it still remains among the highest rated television programs on cable. It airs Wednesdays on the Travel Channel. The first three seasons of WPT are also available on NTSC DVD. (The second season DVD set features audio commentary by

several of the players. The third season is only available in a "Best Of" format, featuring just half of the episodes.)

A series of spin-off tournaments, titled the Professional Poker Tour, began filming in 2004. No episodes have as yet been broadcast, partly due to a dispute with the Travel Channel over rights. In the fall of 2005, WPTE announced that "a cable channel" (believed to be ESPN) had withdrawn from bidding for the PPT series, and that WPTE was negotiating with the Travel Channel to air the series. On January 30, 2006, WPTE and the Travel Channel announced that they had dismissed all open lawsuits and agreed to air as many as 44 new WPT and PPT events in 2006.

## **Player of the Year**

Points are awarded for all Open events as follows:

- Winner: 1000 points
- Runner-up: 700 points
- 3rd place: 600 points
- 4th place: 500 points
- 5th place: 400 points
- 6th place: 300 points
- 7th place (TV bubble): 200 points

This award is given out to one player per season. The winners so far are:

- Season 1: Howard Lederer
- Season 2: Erick Lindgren
- Season 3: Daniel Negreanu
- Season 4: Gavin Smith

## **Results**

World Poker Tour season 1 results

World Poker Tour season 2 results

World Poker Tour season 3 results

World Poker Tour season 4 results (contains spoilers)

World Poker Tour season 5 results (contains spoilers)

# World Series of Poker

The *World Series of Poker* is the most prestigious set of poker tournaments in the world.

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- 2 Evolution
- 3 Harrah's Takes The Pot
- 4 The Marketing of the WSOP
- 5 Film coverage of the WSOP
  - 5.1 WSOP broadcasters

## Origins

The original World Series of Poker was started by Tom Morehead of the Riverside casino in Reno and was an invitational event. The set of tournaments the World Series of Poker (WSOP) would evolve to was the brainchild of Las Vegas legend, casino owner, and poker player Benny Binion as well as his two sons Jack and Ted.

The Binion family not only nurtured the WSOP, but poker in general. Prior to the 1970s, poker was not found at many casinos because of the difficulty of keeping cheaters out. Through better security techniques as well as the Binion's tireless promotion through events like the WSOP, poker became a very popular game.

In 1970 the first WSOP at Binion's Horseshoe took place with seven players. The winner, Johnny Moss was elected by his peers as the first World Champion of Poker and received a silver cup as a prize.

## Evolution

From 1971 on, all WSOP events have been tournaments with cash prizes. In 1973 a new event, Five-card stud, was added to the main event of no limit Texas Hold 'em. Since then new events have been added and removed. In 2006 there will be 42 events at the WSOP, covering the majority of poker variants. Currently, Texas Hold 'Em, Omaha hold 'em and Seven-card stud and their lowball variants (if any) are played. H.O.R.S.E has been played in the past and is returning in 2006. Also, S.H.O.E (Stud, Hold'em, Omaha and Eight or Better) has been played in the past along with Chinese poker, Five card stud and many others. Event winners get, in addition to their prize money, a coveted gold bracelet.

Doyle "Texas Dolly" Brunson and Johnny "Oriental Express" Chan have each won ten bracelets, while Phil Hellmuth has nine. Doyle's son, Todd Brunson, won a bracelet in a pot limit Omaha event in 2005, making them the first and only father/son combo to win at least one event at the WSOP. Also, celebrities Patrick Bruel, Jan Sørensen and Jennifer Tilly have won WSOP bracelets in 1998, 2002 and 2005 respectively.

The number of participants in the WSOP has grown every year, and in recent years the growth has exploded. In 2000 there were 4,780 entrants in the various events, but in 2005, the number rose to over 23,000 players. In the main event alone, participants grew from 839 in 2003, to 2,576 in 2004, to 5,619 in 2005. For the 2006 main event there are accommodations for at least 9,000 players.[1] Much of this growth can be attributed to the WSOP airing on ESPN and the World Poker Tour being shown on the Travel Channel, along with other televised series, as well as the boom of online poker.

Like most tournaments, the sponsoring casino takes a "rake" (a percentage between 6%-10%, depending on the buy-in) and distributes the rest, hence the prize money increases with more players. In the 2005 main event \$52,818,610 (US) in prize money was distributed, including a \$7.5 million first prize. Subtracting the \$10,000 buy-ins, over \$47 million was won by 560 players in the event.

## **Harrah's Takes The Pot**

In 2004, Harrah's Entertainment purchased Binion's Horseshoe, renaming it just "Binion's" and announced that the 2005 Series events would be held at the Harrah's-owned Rio Hotel and Casino, located just off the Las Vegas Strip, with the final two days of the main event held downtown at Binion's in celebration of the centennial of the founding of Las Vegas. It also added a made-for-television \$2 million "freeroll" invitational "Tournament of Champions" (TOC) event won by Annie Duke as a "winner-take-all" event.

Starting in 2005, the WSOP began a tournament "circuit" at Harrah's-owned properties in the United States where in addition to the \$10,000 buy-in tournament at each site, qualifying players became eligible for a revamped Tournament of Champions. The 2005 TOC, made up of the top twenty qualifying players at each circuit event, along with the final table from the 2005 Main Event and the winners of nine or more bracelets (Hellmuth, Chan and Doyle Brunson) would participate in the revamped TOC at Caesar's Palace. Mike "The Mouth" Matusow won the first prize of \$1 million (US), and all the players at the final table were guaranteed a minimum of \$25,000 for the eighth and ninth place finishers. During a break in the final table of the 2005 Main Event on July 16, Harrah's announced that eleven properties — including the recently added Bally's and Caesar's properties — would host 2005-06 WSOP Circuit events that started on August 11 in Tunica, Mississippi. One event, that was scheduled for Biloxi, Mississippi was cancelled after the Grand Casino Biloxi, which was scheduled to host the event, suffered major damage from Hurricane Katrina.

The Rio will again host all 2006 WSOP major events, beginning on June 25 with satellite events and formally start the next day with the annual Casino Employee tournament, and will feature the TOC on June 28 and 29, 2006, along with the various events leading up to the main event, which will be held from July 28 until August 10. If the limit of 8,000 players buying in for \$10,000 each is reached, the first prize is estimated to be \$10 million as well as a special bracelet different from the others.

## **The Marketing of the WSOP**

Like any event or sports league, the WSOP also has corporate sponsors and licensed products, which like any leagues or events, pay fees to market themselves as an official sponsor and/or licensee and exclusively use the WSOP insignia and cross-promote with their events. Besides the Harrah's properties and ESPN, major sponsors have included Miller Brewing's "Milwaukee's Best" brand of beers, Pepsi's SoBe Adrenaline Rush energy drink (sponsors of the 2005 TOC), Helene Curtis' Degree brand of anti-perspirant/deodorant, Card Player magazine, and GlaxoSmithKline/Bayer's Levitra erectile dysfunction medicine are all official corporate sponsors. Licensees include Activision (video games for different platforms such as Nintendo's GameCube, Microsoft's Xbox, Sony's PlayStation 2 and PC featuring computer generated versions of stars like Ferguson among others), and products made by different companies ranging from chip sets, playing cards, hand held games and clothing like caps and shirts. The fees and licences bring in over a million dollars to Harrah's.

## **Film coverage of the WSOP**

The earliest filming of the World Series was a special produced by Binion's Horseshoe in 1973 and narrated by Jimmy "The Greek" Snyder. CBS began covering the World Series in the late 1970s. In the early 1980s, the event was again filmed as specials. In the late 1980s, the World Series returned to television as ESPN took over broadcasting. Initially, coverage consisted of just a single one hour taped delay broadcast of the main event. ESPN Classic currently airs many of the old broadcasts, especially from the mid 1990s and beyond. The most striking thing about the early coverage is how little was actually shown, since no "pocket cam" existed. Generally, ESPN used poker playing actors such as Dick Van Patten, Vince Van Patten and Gabe Kaplan with either the tournament director (usually Jim Albrecht) or a poker pro like Phil Hellmuth joining the team. Early coverage was relatively primitive compared to what ESPN does now, with no pre-taped interviews or profiles on the players. The commentators were actually on the casino floor itself. The 2002 WSOP was the first with the "sneak peek" (later called the pocket cam). 2003 was the first year that the broadcast covered action preceeding the final table.

Since then, ESPN has greatly expanded its coverage to include many of the preliminary events of the WSOP, especially Texas Hold 'Em. Also, their coverage of the main event now typically includes at least one hour program on each day. Since 2005, ESPN has been broadcasting one hour programs of the "circuit" events that the WSOP has at various Harrah's-owned casinos. Additionally, ESPN's coverage now includes many of the trappings of sports coverage, such as lighter segments (called "The Nuts") and interviews.

In 2000 and 2001, the World Series of Poker was broadcast by The Discovery Channel. These hour long programs presented more of an overview or recap of the WSOP as opposed to broadcasting an actual live event with play-by-play analysis and color commentary. The Discovery Channel's broadcast also featured final table players interviews interlaced throughout the show. ESPN would resume coverage the following year.



ESPN's coverage in 2002 would be typical of their coverage in the 1990s (recorded in video, little or no post-production commentary or player profiles, no card cams). However, the final table broadcast was expanded over two one-hour episodes.

ESPN has expanded poker to all-new levels, especially with their coverage of the 2006 WSOP. It was announced that poker fans would be able to view the entire final table of the 2006 Main Event via pay-per-view. This would cost \$24.95 per order. Nonetheless, this is huge indicator of the popularity "boom" of poker in the United States.

## **WSOP broadcasters**

1973 (special) - Jimmy "The Greek" Snyder  
1978 (CBS) - Brent Musburger and Jimmy "The Greek" Snyder  
1979 (CBS) - Frank Glieber and Jimmy "The Greek" Snyder  
1981 (special) - Curt Gowdy  
1983 (special) - Curt Gowdy and Bobby Baldwin  
1987 (special) - Ted Robinson  
1988 (ESPN) - Chris Marlowe  
1989 (ESPN) - Chris Marlowe  
1990 (ESPN) - Chris Marlowe  
1991 (ESPN) - Chris Marlowe  
1993 (ESPN) - Dick Van Patten and Jim Albrecht  
1994 (ESPN) - Dick Van Patten and Jim Albrecht  
1995 (ESPN) - Dick Van Patten and Jim Albrecht  
1997 (ESPN) - Gabe Kaplan and Jim Albrecht  
1998 (ESPN) - Vince Van Patten and Jim Albrecht  
2002 (ESPN) - Lon McEachern and Gabe Kaplan  
2003 (ESPN) - Lon McEachern and Norman Chad  
2004 (ESPN) - Lon McEachern and Norman Chad  
2005 (ESPN) - Lon McEachern and Norman Chad

## **The main event**

The main event of the WSOP is the \$10,000 buy-in no-limit Texas Hold 'Em tournament since 1972. (In 1971, the buy-in was \$5,000.) Winners of the event not only get the largest prize of the tournament and a gold bracelet, but additionally their picture is placed into the Gallery of Champions at Binion's.

There have been many memorable moments during the main events, including Jack Straus's 1982 comeback win after discovering he had one \$500 chip left when he thought he was out of the tournament.

Four players have won the main event multiple times: Johnny Moss (1970, 1971 and 1974), Doyle Brunson (1976 and 1977), Stu Ungar (1980, 1981 and 1997) and Johnny Chan (1987 and 1988.)

The end of the 1988 main event was featured in the movie Rounders.

Chris Moneymaker and Greg Raymer, the winners in 2003 and 2004 both qualified for the main event through satellite tournaments at the PokerStars online cardroom.

Several living poker legends have tried unsuccessfully for years to win the main event, including T. J. Cloutier, the 1985 and 2000 runner-up.

As of 2006, a cap of 8,000 players is now an official stipulation of the Main Event. With the exception of winners of the World Series Of Poker Main Event satellite tournaments (who automatically win a spot in the main event), all remaining players (including former champions, celebrities, and professional poker players) must supply the \$10,000 buy-in, in order to participate.

## Poker variants

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- 2 Other poker variants
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The card game of *poker* has many *variations*, most of them created in the United States in the mid-1900s. The standard order of play applies to most of these games, but to fully specify a poker game requires details about which hand values are used, the number of betting rounds, and exactly what cards are dealt and what other actions are taken between rounds.

### Popular poker variants

The most populate poker variants can be divided into the following groups:

- *Draw poker*: Games in which players are dealt a complete hand, hidden, and then improve it by replacing cards. The most common of these is Five-card draw.
- *Stud poker*: Games in which each player receives a combination of face-up cards and face-down cards in multiple betting rounds. The most common of these are Seven-card stud and Five-card stud.

- *Community card poker*: Games in which each player's incomplete hidden hand is combined with shared face-up cards. The most common of these are Texas hold 'em and Omaha hold'em.

## **Other poker variants**

Some poker games just don't fit neatly into the above categories, and some have features of more than one of these categories.

### **Stud Horse poker**

Stud Horse poker is mentioned in the California law books as one of the gambling games prohibited in California's card rooms. There is no definition for it under the law, however. It appears not to be Stud poker, which is not prohibited and is offered in several variations in California card rooms.

### **Oxford stud**

Though called "stud", this is a combination stud/community card game that was popular at MIT in the 1960s, in which players receive individual downcards, individual upcards, and community cards. Many variations on this are possible by changing what kinds of cards and how many are dealt in various rounds.

One difficulty with such a combination is deciding the betting order: in stud games, the player with the best upcards showing bets first in each round (except sometimes the first, where the worst upcard is forced to begin the betting with a Bring-in). In community card games, each betting round begins with the same player (because there generally are no upcards), making it more positional. Oxford stud chooses to use the players' individual upcards for determining order, which makes it play more like stud.

First, each player is dealt two downcards and one upcard as in seven-card stud, followed by a first betting round. Like stud, the game is usually played with a Bring-in, the lowest upcard being forced to pay it, and betting follows after that. After the first round is complete, two community cards are dealt to the table, followed by a second betting round, beginning with the player with the highest-ranking incomplete poker hand (as in stud) made from his upcard plus the two community cards. For example, if one player has a *K* upcard, and a second player has a 7 upcard, and the community cards are *T-7* ( $T = 10$ ), the second player bets first (since he has a pair of 7s, and the other player only has *K*-high). Then a second upcard is dealt to each player, followed by a third betting round, again beginning with the player who can make the best partial hand with his two upcards and the board. Finally, a third community card is dealt to table, followed by a fourth betting round and showdown. Note that as with Mississippi stud, each player has five cards of his hand exposed at this point (two of his own plus three on the board), so it is possible for a flush or straight to be the high

hand for the purpose of first bet. At showdown each player makes the best five-card hand he can from the four cards he is dealt plus the three community cards, in any combination. This game is usually played High-low split.

### **Billabong (and Shanghai)**

Just as Oxford stud is a mixed stud/community card version of Texas hold 'em, Billabong is a mixed version of Manila. Each player is dealt two downcards and one upcard. Low upcard starts the betting with a Bring-in if you are playing with one, otherwise high card starts the betting. Next, two community cards are dealt, followed by a second betting round, beginning with the player with the best exposed partial poker hand (counting the community cards, as in Oxford stud). Then a third community card is dealt, followed by a third betting round. Finally a fourth community card is dealt, followed by a fourth betting round and showdown. Each player plays the best five-card hand he can make from the three in his hand plus the four on the board in any combination.

Shanghai is the same game with an extra hole card, but no more than two hole cards play. That is, the game begins with each player being dealt three downcards and one upcard; each player must discard one of his hole cards at some point during the game as determined ahead of time. The most common variation is to discard immediately as in Pineapple; the second most common is to discard just before showdown as in Tahoe.

### **Guts**

Rather than the customary rounds of betting followed by a single showdown, guts features multiple rounds, each of which consist of the decision to be "in" or "out", and each of which contains a showdown. Only the players who stay "in" participate in the showdown. In the most common version, the player who stays in with the best hand receives the current pot, while all other players who stayed in must match the pot to form the next pot. For example, if the pot is \$5 and three people stay in, then one player will receive the \$5 pot and two players will be forced to add \$5 each to the next pot, escalating the size of the pot for the next deal. Then the hand is re-dealt, and all players (even those who were "out" in the last round) can participate again. The game ends when only a single player has the guts to stay "in", and thus the pot is taken without replenishment.

Each player's hand usually consists of a reduced poker hand of either 2 or 3 cards. The cards are ranked as in regular 5-card poker, but in some variations straights and flushes count and in some they do not.

Another variation is for three-card guts. The hands are ranked as follows: Three of a kind, straight flush, straight, flush, pair. Each player receives two cards face down. In turn, each player declares whether they're in or out. If they're in, they receive their third card face up. The dealer declares last; if no other player has stayed in, then the dealer must have a pair or better to win the pot. Another variation is for the other players to have another chance to

declare and challenge the dealer. With this variation, there is no requirement for the dealer's hand; if no one challenges him, the dealer wins.

Declaring "in" or "out" is similar to declaring high or low in high-low games. Each player takes a chip, places their hands under the table, and either places the chip in one fist or not. Each player then holds their closed fist above the table, and the players simultaneously open their hands to reveal their decision (a chip represents "in", an empty hand represents "out").

Because the pot can double (or more) each round, the stakes can grow exponentially, and pots of 50 or 100 times the original ante are possible.

There are many variations. Sometimes only the single player with the worst hand (who stayed in) must add to the pot, but they must double the pot rather than match it. In an especially vicious variation, nobody wins the pot unless nobody else stays in. This can degenerate quickly, when one player must add a large amount to the pot, and decides to stay in until he wins it back. Thus the game continues indefinitely, with one player continually adding larger and larger amounts to the pot. The pot may grow so big that no player has enough cash to match it, leading to arguments about how to end the game. (This variation is not recommended when playing among friends. Often this variation is abandoned after the first really big pot leads to conflict.)

One solution to the exponentially growing pots is to cap them at 50x or 100x the ante. That is, if there are 5 players with an ante of \$1, the pot started at \$5. If there were 3 doublings, the pot is now at \$40. Suppose the "cap the pot at \$50" rule were in force. Then, if another doubling occurred, each loser would pay \$40, but the pot would now be at \$50 and the extra \$30 would be set aside as the ante once there's a hand with a winner and no loser.

## See also

- Non-standard poker hands
- Rule variations (poker)
- Blind Man's Bluff

# Draw poker

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- 3 **"Home" games**
  - 3.1 Shotgun ("Roll 'em out" and "Skinny Minnie")
  - 3.2 Spit in the ocean
  - 3.3 Anaconda ("Pass the trash")
- 4 Ad hoc variants

*Draw poker* is any poker variant in which each player is dealt a complete hand before the first betting round, and then develops the hand for later rounds by replacing cards.

The descriptions below assume that you are familiar with the general game play of poker, and with hand values (both high and low variations). They also make no assumptions about what betting structure is used. In home games, it is typical to use an ante, and betting always begins with the player to the dealer's left. In casino play, it is more common to use blinds; the first betting round thus begins with the player to the left of the big blind, and subsequent rounds begin with the player to the dealer's left, thus draw games are very positional.

Some sample deals below will assume that a game is being played by four players: Alice, who is dealing in the examples, Bob, who is sitting to her left, Carol to his left, and David to Carol's left.

## Standard five-card draw

*Main article: Five-card draw*

This is often the first poker variant learned by most players, and is very common in home games although it is now quite rare in casino and tournament play. Two to eight players can play.

## Other draw games

### Gardena jackpots ("Jacks to open" or simply "Jackpots")

Played as above, with standard hand values, and with a single joker in the deck acting as a bug. Always played with an ante and no blinds. On the first betting round, no player is allowed to open the betting unless his hand already contains a pair of jacks or a better hand. Other players who checked on the first round may subsequently call or raise if someone else opens. If no player opens, a new deal begins and everyone antes again into the same pot. The player who opened the betting keeps his discarded cards near him on the table so that he can prove, if necessary, that he had a sufficient opening hand. For example, a player with the *K*, *J*, 9, and 7 of clubs and the *J* of hearts has a pair of jacks and may open. He may wish to "break openers" in this case by discarding the jack of hearts in an attempt to make the club flush, so he keeps the discarded jack to prove that he was entitled to open.

The game is named after the city of Gardena, California, where this game was especially popular from the 1930s to 1970s (though it was always secondary to lowball). At that time, there were more public poker tables in that small city than in all the rest of the United States. Public poker rooms are still a big industry there, though Las Vegas, Atlantic City, and other locations now have many more poker rooms than they did at that time. Because "Jacks to open" was the primary form of high-hand draw poker played there, traditional draw poker was often described by the retronym "Guts to open".

In home games, it is common that when a deal is "passed out" (that is, when no one opens), the players re-ante, and the qualifier to open is raised to a pair of queens. If that deal is passed out, the qualifier is raised to kings, and finally to aces. This is called "progressive" jackpots.

### California lowball

#### **Main article:** Lowball (poker)

This was the primary poker game played in California during the heyday of Gardena in the 1970s. It is still played today, though its popularity has somewhat lessened since the introduction of stud poker and community card poker to the state.

Played as above, using ace-to-five low hand values, with a single joker in the deck. Always played with blinds rather than antes, so players may not check on the first betting round (but may on the second round). A player with a 7-high hand or better who checks after the draw forfeits his right to win any money placed in the pot after the draw. (In other words, you may not check a "seven" unless you intend to fold when someone else bets). Another common rule in low-limit games is that a player who checks on the second betting round may not subsequently raise on that round. This latter rule is never used in games with a pot limit or no limit betting structure.

## **Badugi**

*Main article: Badugi*

Also sometimes known as Padooki or Badougi, Badugi is a four card ace-to-five low lowball variant where traditional poker hand rankings are changed. A Badougi is a four card hand where all the cards are of different ranks and suits. Any cards which match another card in rank or suit does not play and the first criteria for evaluating hands is the number of cards which are playing. The following is the ranking of several example of hands from best to worst:

1. Ace of spades, 2 of clubs, 3 of hearts, 4 of diamonds: 4 card 4 high best possible Badougi
2. 4 of spades, 6 of hearts, 8 of diamonds, J of clubs: 4 card J high Badougi
3. Ten of clubs, J of hearts, Q of Diamonds, K of hearts: 4 card worst possible Badougi
4. Ace of hearts, Ace of diamonds, 4 of clubs, 5 of spades: 3 card hand, 5 high
5. Ace of clubs, Ace of spades, 4 of spades, 6 of spades: 2 card hand, 4 high

Badougi is usually played triple-draw, with a 1-1-2-2 betting structure, although it also plays well at no limit.

## **Other forms of lowball**

Five-card draw, with no joker, and deuce-to-seven low hand values is called "Kansas City" or "Low Poker" or even "Billy Baxter" draw in honor of the player who dominated the world championship in the event for many years. The 7-high rule and the no check-and-raise rule do not apply. In the eastern United States, the United Kingdom, and elsewhere, ace-to-six low hand values are common.

## **California high/low split**

Played as above, with a single joker, used as a bug. High hand and low hand (using the ace-to-five low values) split the pot. An 8-high or better low is required to win low. If no hand qualifies low, high hand takes the whole pot. Played cards speak, that is, players do not declare whether they intend to win the high or low half of the pot (or both); they simply show their cards and the best hands win. Because ace-to-five low values are used, a hand such as a low straight or flush can win both high and low, called "scooping" or "hogging" the pot.



## **High/low with declare**

### *Main article: High-low split*

This is common in home games but is rarely found in casinos today. Played as are other versions of five-card draw, but after the second betting round and before the showdown, there is a simultaneous declaration phase. Each player takes two chips from his stack and takes them under the table, bringing up a closed fist that contains either no chips (indicating that the player intends to win the low half of the pot), one chip (indicating that the player intends to win the high half), or two chips (indicating that he intends to scoop). When everyone has brought up the closed fist, the players all open their hands simultaneously to reveal their choices. If any player shows two chips, and his hand is the best low and the best high, he scoops the pot. Otherwise, half of the pot goes to the player with the highest hand who declared high, and the other half to the player with the lowest hand of those who declared low. There is no qualifying hand to win either high or low, and if no one declares in one direction, the full pot is awarded in the other (for example, if all players declare low, the low hand wins the whole pot rather than half). A player who declares for a scoop must win both ends outright, with no ties. For example, if a player declares scoop, has the lowest hand clearly but ties for high, he wins nothing. The other player with the same high hand wins the high half of the pot and the next-lowest hand wins low (assuming he declared low--if no other player declared low, the high hand who declared high wins the whole pot).

This game can be played with deuce-to-seven low or ace-to-six low hand values, but in that case it is nearly impossible to scoop (though you can still win the whole pot if everyone declares the same direction).

## **Double-draw and Triple-draw**

Any game above can be played with two or three draw phases and therefore three or four betting rounds. Double-draw California lowball is a particularly good game. Triple draw lowball, either ace-to-five or deuce-to-seven, has gained some popularity among serious players. The 2004 World Series of Poker included a deuce-to-seven triple-draw lowball event.

## **Four-before**

Another variation that can be applied to any game above, but that is especially suited to lowball. On the initial deal, only four cards are dealt to each player. A betting round follows, then each player draws one more card than he discards, completing his hand to five cards. Then the final betting round and showdown. Note that it is impossible to be dealt a "pat" hand, that is, a hand (such as a straight or flush) that is complete before the draw.

## **Johnson (and "Jacks back")**

Played with one joker which acts as a bug. Must be played with antes and no blinds. Each player is dealt five cards. The first betting round begins with the player to the dealer's left, who may check or open with anything. If any player opens, the game continues as traditional five-card draw poker. If the first round is passed out (that is, no one opens), then the player to the dealer's left may now open if he chooses, but the game has switched to California lowball. On the rare occasion that the deal is passed out yet again, players re-ante and deal again. This game plays well head-up (that is, with only two players). When the game is played that a pair of jacks or better is required to open on the first high-hand round, the game is called "Jacks back".

Some examples might help clarify: On the first deal, players ante and Alice deals five cards around. Bob sees that he has a 6-high straight, which is a very good hand for both high and low. He also wants to be deceptive about the value of his hand, so he checks. Carol opens for \$1, David folds, Alice raises to \$2, and Bob (who now realizes that Carol and Alice want to play high hands) reraises to \$3, which is called by Carol and Alice. Bob announces that he "stands pat" (draws no cards). Carol draws three cards, and Alice draws two. Bob bets \$2, Carol folds, Alice raises, and Bob calls. Bob shows his straight, but Alice has made a full house and wins the pot.

On the second deal, Bob has the same hand: a 6-high straight, and makes the same play, checking. This time, Carol also checks, as does David, and finally Alice. Now it is Bob's turn again, but now they are playing lowball. He opens for \$1. Carol folds, and David raises to \$2. Alice folds, and Bob reraises to \$3 (a 6-high is a very good low hand; much better, in fact, than a 6-high straight would be for high). David calls. Bob stands pat, and David draws one card. Bob bets \$2 (he is required to bet under California lowball rules since he has a hand better than 7-high), and David calls. Bob shows his 6-5-4-3-2 low, and David shows 7-5-4-3-A low, and Bob wins with his 6-high.

## **Q-Ball**

This is a lowball game designed by Michael Wiesenbergs that combines some of the variations mentioned above. It is generally played with three blinds--one unit from the dealer, one unit to his left, and two units for the second player to the dealer's left. The deck contains one joker. Each player is dealt three cards, followed by a round of betting beginning with the player immediately after the big blind who may call the big blind, raise, or fold (there is no checking on the first round). Next, each player is dealt a fourth card, followed by a second round of betting starting with the still-active player to the dealer's left. No checking is allowed on this round either, despite the fact that there is no bet facing the first player; the first player must open or fold. Each player is then dealt a fifth card, followed by a third betting round beginning on the dealer's left. At this point, checking is allowed. Finally, each player draws as in normal draw poker, followed by a fourth betting round and showdown. Ace-to-five low values are used.

Played at fixed limit, it is recommended that the betting structure be 1-2-2-4; that is, the second and third betting rounds should allow a bet of twice the amount of the first round, and the final bet should allow four times the amount of the first round.

## **"Home" games**

These are somewhat less-serious games that are typically played only in home games at small stakes. This does not necessarily mean that there is less opportunity for skillful play, just that the games are seen as more social than competitive.

To help grow the betting pot in a home game, one can add a variant known as the "kill card" to the rules. Kill cards work best with stud games or shared card games as no one player can control when the "kill card" is played.

One popular "kill card" game is called Chernobyl Cowboy. The "Chernobyl Cowboy" is the King of Hearts. Whenever the King of Hearts appears face up in a stud or shared card game the game is dead. All bets remain in the pot and the game begins again with a new ante and a new deal. Anyone who has folded is out until the game concludes. For example: In a seven card stud game each player gets two cards down, then four cards up, then one final card down. In a seven card stud game with a "Chernobyl Cowboy", if the King of Hearts comes up during the time the four up cards are dealt, the game is killed and everyone who is still in antes again for a new round.

## **Shotgun ("Roll 'em out" and "Skinny Minnie")**

This is a draw game that plays much like a stud game. First five cards are dealt to each player, followed by a betting round, and a draw. Now, in place of a second round and showdown, there is a rollout phase, which begins with the players arranging their five cards in any chosen order, placing them face down in front of themselves. Each player's top card is now revealed, followed by a betting round. Then each player reveals his next card, followed by a betting round. Then a third card is revealed, followed by a betting round, a fourth card, a betting round, and finally a showdown. Players may not change the order of their cards at any time during the rollout phase.

This game can be played for high or low, but plays best at high-low split, in which case it is called "Skinny Minnie".

## **Spit in the ocean**

This might be classified as a hybrid draw/Community card game, but it is placed here because it plays mostly as a draw game. On the initial deal, each player is dealt four cards, and then a single card is dealt to the center of the table face up. This card plays as if it were the fifth card in every player's hand. It is also a wild card, and every other card of its rank is also wild. The first betting round is then played, followed by a draw in which each player replaces cards from his hand with an equal number, so that each player still has only four cards in hand. A final betting round is followed by a showdown. High-hand values are used.

Here's a sample deal: Alice deals four cards to each player, then deals the next card face up to the center of the table. it is the 6 of diamonds, and this makes all 6-spot cards wild. Bob opens for \$1, Carol raises to \$2, David folds, Alice and Bob call. Bob discards two cards, and

receives two replacements. Carol draws one card, and Alice draws one. Bob checks, Carol bets \$2, Alice raises to \$4, Bob folds, Carol reraises to \$6, and Alice calls. The cards in Carol's hand are *Q-Q-6-4*. Because the 6 in her hand and the one on the board are wild, her hand is four queens. Alice's hand contains *K-J-9-7*, all spades. With the shared wild card, this gives her a flush, which loses to Carol's four queens.

## **Anaconda ("Pass the trash")**

### **Main article:** Anaconda (poker)

Seven cards are dealt to each player. Before the first betting round, each player examines his hand, and removes exactly three cards from his hand and places them on the table to his left. After each person has thus discarded, he picks up the cards discarded by his right-hand neighbor and places them in his hand (thus, each player will have given three cards to his left-hand neighbor). It is important that each player discard before looking at the cards he is to receive. After the first pass, there is a betting round. Then a second pass occurs, each player passing two cards to his right. A second betting round is followed by a third pass, each player passing one card to his left. Finally, a fourth betting round and a showdown, in which the player with the best five-card high hand he can make out of the seven in his hand wins the pot.

In some casual games, the showdown is replaced by a rollout phase, as described above in "Shotgun". This makes a total of eight betting rounds in the game, which generally destroys any chance for skillful play in the later rounds.

## **Ad hoc variants**

Any of the above games can be modified in many ways upon player whim, by designating additional wild cards, betting rounds, more or fewer cards, altered hand values, and any other change agreed upon by all players prior to each deal. You can announce such a game by using the name of an existing game and specifying the variations, for example "Three-card Triple-draw California lowball, Kings wild" (a surprisingly good game heads up). Many times this will result in a game that does not play well, but occasionally will produce a game that is well-suited to a particular group of players. Even if it doesn't, such games can be used sparingly to enliven an otherwise serious game.

Here are some general guidelines:

- If you want to designate some normal suited cards as wild, choose cards that would otherwise be bad for the game being played. For example, deuces wild for high-hand games, kings wild for lowball, 9-spots wild for high-low split (where an 8-high or lower is necessary to win low).
- High-low split games play best with more than four players.
- When playing high-low split, it is necessary to have either a declaration phase or a qualifier (but not both). The most common form is 8-high or better to qualify low, but also common is any pair/no pair (that is, a pair or better is

required to win high, and no pair or better low is required to win low), and 9-high for low.

- Designating more than four wild cards (or possibly six) will result in considerable confusion and many ties.
- Two to five betting rounds makes a good game. One round or more than five rounds reduces the amount of skill involved.
- Sometimes there is no betting round before the draw; players pick up their cards, discard and draw, and then the betting starts.
- Giving each player more than eight or nine cards usually makes a bad game. (Note that in Anaconda, each player will have seen up to thirteen cards!) \*\*

## Anaconda

*Anaconda* is a variety of the card game Poker, also called "Pass The Trash Poker."

### Contents

- 1 Simple Play
  - 1.1 Betting
- 2 Variations

### Simple Play

This version of the game is also called "3-2-1 Anaconda" or "3-2-1 Left."

Each player is dealt 6 cards. They then each select 3 cards to be passed to the player on their left. These cards are simply set on the table near their left-most opponent. No players get to see their new 3 cards until everyone has made a pass. Afterward, the players repeat the process, only with 2 cards, then again with 1 card. Players then discard 1 card to make their best 5-card Poker hand.

In this version of the game, up to 8 people can play, passing out a total of 48 cards and having 4 left over. A 9th person can be added with the use of both Jokers as Wild cards.

## Betting

Betting can be included in the simple version of the game. Set up general Poker staples such as the dealer button, blinds, and/or antes. Have a round of betting occur before the first pass of 3 cards, then again after every card pass is made, and ending with a showdown if necessary. If a player folds at anytime, then they are no longer involved in card passing.

## Variations

Anaconda can be changed in many possible ways, such as:

- Altering the amount of starting cards (7 cards is common).
- Altering the amount of cards passed.
- Altering who the cards are passed to, possibly per round.
- Incorporating Joker cards.
- Including only one betting round & showdown after all passing rounds.
- Removing all betting rounds and playing without money/chips.

Categories: Draw poker

## Badugi

*Badugi* (also known as *Badougi* or *Padooki*) is a draw poker variant similar to triple draw, but with differing hand values than traditional poker. The betting structure and overall play of the game is identical to a standard poker game, but unlike traditional poker which involves a minimum of five cards, players' hands contain only four cards at any one time. During each of three drawing rounds, players can trade zero to four cards from their hands for new ones from the deck, in an attempt to form the best badugi hand and win the pot. The object of Badugi is to win pots, the share of money put in by oneself and one's opponents during the hand. The winner of the pot is the person, who has not folded, with the best badugi hand at the conclusion of play (known as the showdown).

Originating in Asia, Badugi is becoming very popular in the United States.

### Contents

- 1 Play of the hand
- 2 Hand evaluation
- 3 Example hand
- 4 Betting structures
- 5 Strategy

## Play of the hand

Play begins with each player being dealt four cards face down. Each player may observe those four cards she is dealt, but not the cards dealt to other players. The hand begins with a "pre-draw" betting round, beginning with the player to the left of the big blind (or the player to the left of the dealer, if no blinds are used) and continuing clockwise. Each player must either call the amount of the big blind (put in an amount equal to the big blind), fold (relinquish any claim to the pot), or raise (put in more money than anyone else, thus requiring others to do the same).

Once everyone has put the same amount of money in the pot or folded, play proceeds to the draw. Beginning with the first player still in the pot to the left of the dealer, each player may discard any number of cards and receive an equal number of replacement cards (called the "draw"). Replacement cards are dealt before the next player chooses the number of cards to draw. The discarded cards are not readded to the deck but are discarded from the game.

The first draw is followed by a second betting round. Here players are free to check (not put in any money, but also remain in the hand) until someone bets. Again betting proceeds until all players have put in an equal amount of money or folded. After the second betting round ends, there is another draw followed by a third betting round. After that there is the final draw, followed by a fourth betting round and the showdown, if necessary.

If at anytime all players but one have folded, the sole remaining player is awarded the pot. If there are more than one player remaining at the conclusion of the final betting round, the hands of those players are compared and the player with the best badugi hand is awarded the pot.

## Hand evaluation

Badugi has a different ranking of hands than traditional poker. Although every player has four cards to use, the rules of the game require that certain cards be removed to construct a one, two, three or four card badugi hand. At the showdown (after all betting has concluded), a player is forced to remove the higher of any two suited cards and any paired cards from the four. This generates a badugi hand of one to four cards. Any four card badugi hand beats a three card badugi hand, three card badugi hands beat a two card badugi hand, and two card badugi hands beats a one card badugi hand. A four card badugi hand is often referred to simply as a "badugi".

Two badugi hands containing the same number of cards are evaluated by comparing the highest card in each hand (where ace is low). As in lowball, the hand with the lower card is superior. If there is a tie for the highest card, the second highest card (if there is one) is compared. If the ranks of all the cards in the badugi hand are the same the two hands tie. As with standard poker games, suits are irrelevant in comparison of two hands.

Here are a few examples:

- 2`4c**5f6e** beats A`2c**3f7e** (both are four card hands) since the highest card is compared first and the **6e** is smaller than **7e**.
- 4`5c**6fKe** beats 2`3`**4f7e** the former is a four card hand and the second is a three card hand (the 3` must be discarded making the hand 2`**4f7e**).

- $2^3 4f7e$  beats  $4^5 6fKe$  both are three card hands, the highest in the first is the  $7e$  while the highest in the second is the  $Ke$ .
- $5f7cKcKe$  beats  $2^3 fK^Kf$  the former is a three card hand (made by discarding the  $Kc$ ) the later is a two card hand (made by discarding the two Kings).

## Example hand

Here is a sample deal involving our four players. The players' individual hands will not be revealed until the showdown, to give a better sense of what happens during play:

*Compulsory bets:* Alice is the dealer. Bob, to Alice's left, posts a small blind of \$1, and Carol posts a big blind of \$2.

*First betting round:* Alice deals four cards face down to each player, beginning with Bob and ending with herself. Ted must act first because he is the first player after the big blind. He cannot check, since the \$2 big blind plays as a bet, so he folds. Alice calls the \$2. Bob adds an additional \$1 to his \$1 small blind to call the \$2 total. Carol's blind is "live" (see blind), so she has the option to raise here, but she checks instead, ending the first betting round. The pot now contains \$6, \$2 from each of three players.

*First draw:* Each player may now opt to draw up to four cards in an attempt to improve their hands. Bob, who is to the dealers immediate left, is given the first chance to draw. Bob discards two cards and receives two replacement cards from the top of the deck. Bob's discarded cards are not added to the deck, but removed from play. Carol now chooses to also draw two. Finally, Alice chooses to draw one.

*Second betting round:* Since there are no forced bets in later betting rounds, Bob is now first to act. He chooses to check, remaining in the hand without betting. Carol bets, adding \$2 to the pot. Alice and Bob both call, each adding \$2 to the pot. The pot now contains \$12.

*Second draw:* Bob draws one. Carol opts not to draw any cards, keeping the four she has (known as standing pat). Alice draws one.

*Third betting round:* Bob checks again and Carol bets \$4. Alice, this round, raises making the total bet \$8. Bob folds and Carol calls the additional \$4. The pot now contains \$20.

*Third draw:* Since Bob has folded Carol is now first to act, she opts to draw one. Alice stands pat (does not draw).

*Last betting round:* Carol checks and Alice bets \$4. Carol calls.

*Showdown:* Alice shows  $2^4 c6f9e$  for a nine-high badugi (or four card hand). Carol has  $3^5 f7c8e$ , an eight-high badugi. Carol wins the \$28 pot.

## Betting structures

In casino play, it is common to use a fixed limit and two blinds. The limit for the first two rounds of betting is called a small bet, while the limit for the third and fourth betting rounds is called a big bet and is generally double the small bet. The small blind is usually equal to half of a small bet, and the big blind is equal to a full small bet.



This game is also played pot-limit, half-pot-limit, and no-limit. These structures allow for more range in the amounts bet.

## Strategy

Badugi shares many strategic similarities with other forms of draw poker, and many of the strategic concepts used in draw apply to badugi as well. In general, drawing on the last round against an opponent who has not drawn is considered a mistake, unless special circumstances warrant this maneuver.

Like other games with a fixed order of play, position can be an important component in badugi strategy. Players who are last to act often have an opportunity to bluff since they are able to observe the actions of other players before they act. In addition, players in late position are able to determine the strength of their hand more accurately by observing the actions of other players.

Categories: Draw poker

## Five-card draw

*Five-card draw* is often the first poker variant learned by most players, and is very common in home games although it is now rare in casino and tournament play. The lowball variations make more interesting games and are more commonly played in casinos. Two to eight players can play.

The descriptions below assume that you are familiar with the general game play of poker, and with hand values. They also make no assumptions about what betting structure is used. In casino play, it is common to use blinds; the first betting round thus begins with the player to the left of the big blind, and subsequent rounds begin with the player to the dealer's left. In home games, it is typical to use an ante; the first betting round begins with the player to the dealer's left, and the second round begins with the player who opened the first round.

Play begins with each player being dealt five cards, one at a time, all face down. The remaining deck stub is placed aside, often protected by placing a chip or other marker on it. Players pick up the cards and hold them in their hands, being careful to keep them concealed from the other players. The first "before the draw" betting round occurs at this point, starting with the player to the dealer's left (or to the left of the big blind if blinds are used).

If more than one player remains after the first round, the "draw" phase begins. Each player specifies how many of his cards he wishes to replace, and discards that many from his hand. The deck stub is retrieved, and after a burn card is dealt, each player in turn beginning at the dealer's left is dealt from the stub the same number of cards he discarded, so that each player again has five cards. It is important that each player discards the cards he wishes to replace before he takes any replacements, and that he take the same number of replacements as he discarded.

A second "after the draw" betting round occurs after the draw phase, beginning with the player to the dealer's left or else beginning with the player who opened the first round (the

latter is common when antes are used instead of blinds). This is followed by a showdown if more than one player remains, in which the player with the best hand wins the pot.

A common "house rule" in some places is that a player may not replace more than three cards, unless he draws four cards while keeping an ace (or wild card). This rule is only needed for low-stakes social games where many players will stay for the draw, and will help avoid depletion of the deck stub. In more serious games such as those played in casinos it is unnecessary and generally not used. A rule that is used by many casinos is that a player is not allowed to draw five consecutive cards from the deck stub. In this case, if a player wishes to replace all five of his cards, he is given four of them in turn, the other players are given their draws, and then the dealer returns to that player to give him his fifth replacement (if no later player drew, it is necessary to deal a burn card first).

Another common house rule is that the bottom card of the deck is never given as a replacement, to avoid the possibility of someone who might have seen it during the deal using that information. If the deck stub is depleted during the draw before all players have received their replacements, the last players can receive cards chosen randomly from among those discarded by previous players. For example, if the last player to draw wants three replacements but there are only two cards remaining in the deck stub, the dealer gives the player the one top card he can give, then shuffles together the bottom card of the deck, the burn card, and the earlier players' discards (but not the player's own discards!), and finally deals two more replacements to the last player.

## Sample deal

The sample deal below assumes that a game is being played by four players: Alice, who is dealing in the examples; Bob, who is sitting to her left; Carol to his left; and David to Carol's left.

All four players ante \$.25. Alice deals five cards to each player and places the deck stub aside. Bob opens the betting round by betting \$1. Carol folds, David calls, and Alice calls, closing the betting round. Bob now declares that he wishes to replace three of his cards, so he removes those three cards from his hand and discards them. Alice retrieves the deck stub, deals a burn card, then deals three cards directly to Bob, who puts them in his hand. David discards one card, and Alice deals one card to him from the deck stub. Alice now discards three of her own cards, and replaces them with three from the top of the deck stub (Note: in a player-dealt casino game there is often a rule that the dealer must discard before picking up the deck stub, but this is a home game so we won't worry about such details). Now a second betting round begins. Bob checks, David bets \$3, Alice calls, and Bob folds, ending the second betting round. David shows a flush, and Alice shows two pair, so David takes the pot.

## See also

- Draw poker

Categories: Draw poker

# Lowball

Some forms of poker, often called lowball, sometimes called "low poker," reward poor poker hands (in the traditional sense). There are three common variations on this idea, differing in whether aces are treated as high cards or low cards, and whether or not straights and flushes are used. The methods are:

- Ace-to-five low: The lowest possible hand is 5-4-3-2-A, called a wheel. Aces are low and straights and flushes are ignored. This is the most common method.
- Ace-to-six low: Also called 6-4 low, since the lowest possible hand is 6-4-3-2-A. Aces are low and straights and flushes count as high hands.
- Deuce-to-seven low: Also called 7-5 low, since the lowest possible hand is 7-5-4-3-2. Almost the direct inverse of traditional "high hand" poker. Aces are high and straights and flushes count as high hands. Since aces are high, A-5-4-3-2 is not a straight, but just ace-high no pair.
- Deuce-to-six low: The other, mostly unused, possibility would be 6-5 low. Aces are high, straights and flushes are ignored.

Some games are played high-low split, where the player with the best traditional poker hand (called the "high hand") splits the pot with the best low hand. The low hand is decided by one of the methods above. According to Official Rules of Card Games by Albert Morehead[1], the low hand in high-low is generally the deuce-to-seven low, although many on-line casinos use ace-to-five low, with a qualifier, e.g., no card higher than an 8. Low hands tie more frequently than high hands, especially in community card games, so it is not uncommon for such a hand to win a small fraction of a poker pot. For example, if one player has the high hand on showdown, and two other players tie for the best low hand, the high hand wins half of the pot and each low hand wins only a quarter of the pot. Playing ace-to-five high-low greatly increases the chances of the "scoop"--winning both hands--because a low flush or straight may count for both high and low. See Rule variations (poker)

## References

1. ^ Albert H. Morehead (1996). Official Rules of Card Games. Ballantine Books.  
ISBN 0449911586.

Categories: Draw poker

## Stud poker

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- 1 General variations
- 2 Specific variants
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*Stud poker* is any of a number of poker variants in which each player receives a mix of face-down and face-up cards dealt in multiple betting rounds. Stud games are also typically **non-positional** games, meaning that the player who bets first on each round may change from round to round (it is usually the player whose face-up cards make the best hand for the game being played). The cards dealt face down to each individual player are called *hole cards* (which gave rise to the common English expression ace in the hole, which suggests that one has something valuable that is hidden from view).

Five-card stud first appeared during the American Civil War, and became very popular. In recent years, Seven-card stud has become more common, both in casinos and in home games. These two games form the basis of most modern stud poker variations.

The number of betting rounds in a game influences how well the game plays with different betting structures. Games with four or fewer betting rounds, such as five-card stud and Mississippi stud (described below), play well with any structure, and are especially well suited to no limit and pot limit play. Games with more betting rounds are more suited to fixed limit or spread limit. It is common (and recommended) for later betting rounds to have higher limits than earlier ones. For example, a "\$5/\$10 Seven-card Stud" game in a Nevada casino allows \$5 bets for the first two rounds and \$10 bets for subsequent rounds. Also common is to make the final round even higher: a "\$5/\$10/\$20" game would allow \$20 bets on the last round only. Another common rule is to allow the larger bet on the second round if there is an "open pair" (that is, at least one player's upcards make a pair). Some casinos (typically in California) use the smaller limit on the first three rounds rather than just the first two.

It is a common convention in stud poker to name the betting rounds after the number of cards each player holds when that betting round begins. So the bet that occurs when each player has three cards is called "third card" or "third street", while the bet that occurs when each player has five cards is "fifth street". The final round, regardless of the number of betting rounds, is commonly called the "river" or simply the "end".

The variations described below assume that you are already familiar with five-card stud and seven-card stud, and with the game play of poker in general.

## General variations

Some rule variations can be applied to almost any game, and combinations of these variations can be used to create ad-hoc games. These include roll your own, rollouts, blind stud, and twist rounds.

Any game can also be changed by adding one or more jokers to the deck to act as wild cards, or by designating certain other cards as wild. Some specific common variations include *Low hole card wild*, in which each player's lowest-ranking downcard (and all other cards of that same rank) are wild in that player's hand only, and *Follow the queen*, in which each time a *Q* is dealt face up to anyone, the next face up card (and all others of that rank) become wild. The usual practice in the latter case is that if a second *Q* appears among the upcards, the previous wild card loses its status to the new one.

One can also vary any stud game by dealing extra downcards and requiring either that one or more hole cards be discarded at some point in the game or adding a restriction on how many of those hole cards may be played in the final hand. For example, five-card stud can be modified by dealing each player an extra downcard at the start of the game, adding the restriction that each player may only use one of his two downcards in his final hand. This game is called *Crocodile stud*. Likewise, seven-card stud can be modified by dealing each player three downcards instead of two on the first round, but adding the restriction that a player may use no more than two of those cards in his final hand (called *Buffalo stud*; if the extra hole card must be discarded after the first betting round, then it is *Australian stud*). If playing one of these games without the requirement to discard the extra hole card at some time during play, it is recommended as a practical matter to ensure compliance that each player physically discard one hole card immediately before showdown, before revealing the "live" hole cards (so that there can be no confusion about which cards were down).

Variations can be made by eliminating betting rounds, dealing more than one upcard at a time for one or more rounds. For example, Mississippi stud (see below) is basically seven-card stud with the second betting round removed, and the last card dealt face up instead of face down. Further adding an extra hole card as above makes it Murrumbidgee stud.

Games that mix stud-like rounds with community cards are discussed on the Community card poker page. In general, one can mix upcard rounds with community card rounds in many ways. See in particular Oxford stud on the community card game page.

## Specific variants

As mentioned above, seven-card stud is probably the most common form of the game, with most other games being variants of that, although five-card stud is also a basic pattern upon which many variations are built. These games are described on their own page. Most of the games described below started as ad-hoc variants, but they have either become popular enough to have a common name, or else have some unique feature to merit including them here.

## Six-card stud

Six-card stud is usually played as identical to seven-card stud, except that the last face-up round is removed (Thus it is two down, three up, one down). It can also be played as 1-4-1, where the first betting round occurs after only two cards are dealt (one down and one up). This latter form more closely resembles five-card stud with an extra downcard.

A variation called *Alligator stud* starts with one hole card and one upcard, followed by a first betting round; then two upcards are dealt to each player followed by a second betting round; then a fourth upcard and betting round, and finally a fifth upcard and betting round. This game plays well at no limit and pot limit. The same game, but with each player initially dealt two downcards and one upcard, and restricted to using only one of his downcards in his final hand, is called *Zanetti stud*.

## Razz (and London lowball)

*Razz* is seven-card stud played with ace-to-five low hand values. It is usually played with a bring-in, paid by the player with the highest-ranking upcard on the initial deal (aces are always low cards in Razz, even for the purpose of assigning the bring-in). On the second and subsequent rounds, the player with the lowest exposed hand starts the betting.

*London lowball* is seven-card stud played with ace-to-six low hand values. It is usually played at pot limit or no limit, and is otherwise identical to Razz.

Here's a sample Razz deal (suits are omitted here because they are never of consequence in Razz; in London lowball, a flush cannot play as a low hand but otherwise they don't generally matter either). Alice deals each player two downcards and then one upcard: Bob's upcard is a *J*, Carol is dealt a *3*, David an *A*, and Alice a *4*. Bob's *J* is the high card (David's *A* is low), so he pays a \$1 bring-in. Carol, David, and Alice all call. Now Bob is dealt a *9*, Carol another *3*, David a *4*, and Alice a *2*. The best low hand showing is now David's *4-A*, just beating Alice's *4-2*. David bets \$1, Alice calls. Bob folds his *J-9*, and Carol calls (her pair of 3s is the worst hand showing, but there are still many cards to come). Alice now deals Carol an *A*, David a *K*, and herself an *8*. The low hand showing is now Alice's *8-4-2*, so she bets \$2. Carol raises \$2, and David folds. Alice calls, ending the round. Carol is now dealt a *6*, and Alice another *8*. Now the lowest hand showing is Carol's *3-3-6-A*, a pair of 3s being lower than Alice's pair of 8s. She bets \$2 and Alice calls. A final downcard is dealt, Carol again best \$2, and Alice calls. Alice reveals that her downcards are *7-J-A*, making her lowest five-card hand an *8-7-4-2-A*. Carol reveals her downcards to be a *4-6-7*, making her lowest five-card hand a *7-6-4-3-A*, which wins the pot.

## Eight-or-better high-low stud

Also known as "seven eight" or "stud eight", *eight or better* is the most common form of high-low split stud. Played as seven-card stud, but the pot is split between the player with the highest hand and the player with the lowest hand (using the ace-to-five low values). An 8-high hand or lower is required to win low. Betting takes place as if playing standard high-hand stud; that is, low card pays the bring-in, if any, on the first round, and subsequent rounds start the betting with the highest showing poker hand. The showdown is cards speak, that is, there is no declaration for high and low. Each player may choose a different subset of five cards to play for high and low. For example, a player with *A-A-8-6-6-4-3* can play a high hand of *A-A-6-6-8*, and a low hand of *8-6-4-3-A*. A player with *K-9-8-7-6-5-4* can play a 9-high straight for his high hand, and *8-7-6-5-4* for low (which is the worst possible qualifying low, but it does qualify). A player with *K-9-8-7-7-6-5* can play the 9-high straight for high, but cannot play any low hand, because he cannot make an 8-high or lower. If there is no qualifying low hand, high hand takes the entire pot.

This game plays well with a bug or two in the deck.

## Mississippi stud

*Mississippi stud* was created to make seven-card stud play better at no limit and pot limit, and is slowly becoming popular for that reason. It is also often played with a betting structure more typical of Texas hold 'em: fixed limit with the last two rounds double the limit of the first two. The bring-in should be less than the first-round limit.

Initial deal as in standard seven-card stud. After the first betting round, two upcards are dealt to each player, so each now has two down and three up (so unlike standard stud there is no betting on "fourth street"). A second betting round is followed by one more upcard and a third betting round. Finally, the last card is dealt face up, so that each player ends with two downcards and five upcards. Because each player has five upcards on the last round, straights, flushes, and full houses count as "high hand exposed" for the purpose of determining who must bet first. After the seventh street bet there is a normal showdown.

Can also be played with low hands, or high-low split. If three downcards are dealt initially instead of two, with the restriction that no more than two of them can be used in the final hand, this variation is called *Murrumbidgee stud*.

## Mexican stud

Various forms of roll your own five-card stud, often with a stripped deck and wild cards, are called *Mexican stud*, Mexican poker, or Stud loco. One such variant played by the Casino San Pablo in northern California has these rules: 8s, 9s, and 10s are stripped from the deck, and a single joker is added (the deck therefore contains 41 cards). The 7-spot and the *J* become consecutive, so that *5-6-7-J-Q* is a straight. A flush beats a full house (with fewer cards of each suit, they are harder to get). The joker plays as a bug if it is face up, and fully wild if it

is face down. The game is played as five-card stud choose-before roll your own. It is usually played with a very high ante, and the high card on the first round pays the bring-in.

The game of *Shifting sands* is Mexican stud in which each player's hole card (and all others of that rank) are wild for that player only.

## Blind stud

*Blind stud* is a variant of stud poker in which all cards are dealt face down. Any stud poker game can be played "blind" by having all cards dealt face down.

Blind stud poker was commonly played in California cardrooms until 1985. The California gambling law makes specific games named by the law illegal, including twenty-one, faro, fantan, and "stud-horse poker". Until 1985, the California attorney general's office interpreted this to mean that draw poker was legal and all forms of stud poker were not, so California cardrooms played exclusively draw poker (mostly lowball). Blind stud was considered a form of draw poker, because like in draw all cards are hidden. Unlike draw, players do not discard cards they intend to replace. In 1985, cardroom owners convinced the state that "stud-horse poker" was an obsolete house-banked game, and that all forms of modern poker were legal. Today, the most popular game in the state is Texas hold 'em.

Not constrained by obscure California law, home games generally do not play blind stud, though some of the forms of blind stud are challenging and well-balanced, including some of those previously offered by California cardrooms. Some of cardrooms got very creative with blind stud games so they could offer players some variety. For example, a club in the Sacramento suburbs used to offer a seven-card high-low split blind stud game which was played 3-2-1-1 (four rounds; three cards dealt on the first, two on the second, then one and one), with two jokers in the deck acting as bugs, and with the double-ace flush rule.

## Miscellaneous

- Five-card stud played high-low split with an added twist round is called *Option alley* or five-card option. The game *Canadian stud* or *Sökö* is five-card stud with two new hand values added: a four-card straight beats one pair, a four-card flush beats a four-card straight, and two pair beats both of the above.

- The term *English stud* is used ambiguously to refer to several games, including six-card stud played 1-4-1 with a twist (also called six-card option), London lowball, and a seven-card stud game where both sixth street and seventh street are twist rounds.

- In the game of *seven-card flip*, each player is dealt four cards face down, and chooses two of them to turn up. All cards are turned up simultaneously after everyone has chosen. As this point, the game proceeds as if it were standard seven-card stud starting on fourth street.

- *Kentrel*, or "48", is a seven-card stud variation which starts with each player being dealt four downcards. Each player must then discard one, choose



one of the remaining three to turn face up (leaving two down and one up as normal), and then proceed as with eight-or-better high-low stud.

- The game of *Chicago* is seven-card stud in which the high hand splits the pot with the player who has the highest-ranking spade "in the hole" (among his downcards). There is also *Little Chicago*, in which the lowest ranking spade in the hole splits the pot; players who play Little Chicago call the high spade variant *Big Chicago*.

- *The Bitch* is a variant on *Chicago* above, played with a combination of up and down cards, usually two down, four up, and one down. The twist is that the Queen of Spades is designated as the highest ranking Spade, followed by the Ace, King, Jack, and so on. Also, if the Queen of Spades is ever dealt as an upcard to any player, all players turn in their cards, re-ante, and replay the game. This can lead to quickly increasing pots, especially if the re-ante amount is increased on each iteration. The high hand splits the pot with the high spade.

- Several different games played only in low-stakes home games are called *Baseball*, and generally involve many wild cards (often 3s and 9s), paying the pot for wild cards, being dealt an extra upcard upon receiving a 4, and many other ad-hoc rules (for example, the appearance of the queen of spades is called a "rainout" and ends the hand). These same rules can be applied to no peek, in which case the game is called "night baseball".

- *Cowpie poker* is played as seven-card stud until after the seventh-street bet. All remaining players then split their hands into a five-card hand and a two-card hand. The five-card hand must outrank the two-card hand, and the latter must contain at least one downcard. After the split there is one more betting round and showdown. Upon showdown, the highest five-card hand and the highest two-card hand split the pot. The name of the game is a pun on Pai Gow.

- *Number Nine* is a variant of seven-card stud in which 9s are wild, and any two number cards that add up to 9 may make one wild card, at the player's option. Aces count as 1 for wild card purposes. The player is not obliged to make any wild cards, and can play cards that could make 9s at face value or as wild cards, at his option. Cards used to make wild cards may not figure in the resulting hand twice. The player cannot add three or more cards. Sometimes, 9s themselves are not wild, and wild cards can be made only by addition.

- *Dr Pepper* is a stud variant where 10's, 2's, and 4's are wild (the name comes from one of the original Dr Pepper advertisements of the 1920s: "Drink a Bite to Eat at 10, 2, and 4 o'clock").

- *Draft* (or "socialist poker") is usually a variant of seven-card stud in which the second and subsequent upcard rounds are dealt this way: for each player remaining, one upcard is dealt to the center of the table (not to any specific player). The player with the worst showing hand gets to choose which of them he will take for his next upcard, then the player with the second-worst showing hand chooses his upcard from those left, and so on, until the player who previously had the best showing hand takes the remaining card. Then betting occurs as normal.

In seven-card stud, this makes for three "draft" rounds (the first three cards are dealt normally, as is the final downcard).

- *Auction* is a similar variation in which each upcard round (or possibly just those after the first) begins with an "auction" phase. Instead of dealing each player one upcard, the first card is dealt to the center and all players bid on it; the player who bids the highest amount places that amount into the pot, and then has the right to either keep the auction card as his own upcard, or designate another player who is required to take it as his. After the first card is auctioned off and placed, the remaining players are dealt a random upcard as usual, and betting proceeds as usual. This variation is commonly played as high-low split, so it is common for a player to "purchase" a high card to force it upon an opponent seeking low, for example.

## Caribbean stud poker

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*Caribbean stud poker* is a casino table game with rules similar to five card stud poker. However, unlike standard poker games, Caribbean stud is played against the house rather than against other players (and, like most such games, it cannot be beaten in the long run). There is no bluffing or other deception. For these reasons, most poker players do not consider it to be a form of poker. (They do not necessarily feel that it should not be called poker, but means merely that they will not refer to it as simply "poker". For instance, a gambler might say "I played poker" if he played seven card stud, but probably would not if he played Caribbean stud.)

The following rules are typical of U.S. casinos, but some of the details (the payouts and limits) vary from casino to casino.

To play, every player places his ante on the layout where indicated; all ante wagers must be placed prior to the dealer announcing "No more bets". Each player and the dealer will then receive 5 cards, face down. The dealer will turn over one of his cards, then push the cards toward the players, after which the players may look at their cards. They may only look at their own cards, and may not discuss what they have with any other player at the table.

Players have the option to play or fold; if they choose to play, they place their bets (twice the amount of their respective ante) in the bet box. If they choose to fold, they forfeit their ante. After all the players have made their decisions, the dealer reveals his hole cards. The

dealer only plays with an ace/king or higher; he then compares his cards to the players' cards (individually, right to left), and the best poker hand wins.

There are some major rules in Caribbean Stud Poker that must be observed at all times while playing:

- Only one hand per player. Players cannot hold or wager on multiple hands at the table.
- Players choosing to play the Progressive Payout feature are responsible for ensuring their \$1 wager has been inserted into slot and the "Indicator Light" is ON.
- Players may not exchange or communicate information regarding their hands to other players or the dealer. Player violation will result in a dead hand and forfeiture of all wagers.
- Incorrect amount of cards to the player constitutes a dead hand (or push) for that player only.
- The decision of the table/casino supervisor is final.
- If the dealer is dealt four cards of the five-card hand, the dealer shall deal an additional card to complete the hand. Any other misdeal to the dealer shall result in all hands being void and the cards shall be reshuffled.
- Each player shall be required to keep the five cards in full view of the dealer at all times. Once each player has examined his or her cards and placed them face down on the layout, they may not touch the cards again.
- If a hole card is exposed prior to the dealer announcing No More Bets, all hands shall be void.

If a player's cards beat the dealer's cards, the player will receive even money (1-1) on the ante, and the following on his bet (with a maximum payout of \$5,000 U.S. Dollars per hand on each bet wager):

<b>Royal flush</b>	100 to 1
<b>Straight flush</b>	50 to 1
<b>Four of a kind</b>	20 to 1
<b>Full house</b>	7 to 1
<b>Flush</b>	5 to 1
<b>Straight</b>	4 to 1
<b>Three of a kind</b>	3 to 1
<b>Two pair</b>	2 to 1
<b>One pair or less</b>	1 to 1

If the dealer does not have at least ace/king, all bet wagers will be void, and players will receive even money on their ante bet only. If the dealer's cards beat a player's cards, the dealer collects both the ante and bet.

In addition, in Caribbean stud poker, players can also bet on their poker hands and win the "progressive feature"; this is done by dropping a 1.00 dollar gaming chip into the chip acceptor on the table after placing the ante. Players with a flush or higher win, regardless of the outcome of their table bets:

**Royal Flush** 100% of Progressive Meter

**Straight Flush** 10% of Progressive Meter

**Four-of-a-Kind** \$500

**Full House** \$100

**Flush** \$50

Winning progressive payout hands are paid in accordance with the amount on the meter when it is the player's turn to be paid. However, if more than one player at a table has a royal flush progressive payout hand, each player shares equally in the amount on the meter when the first player with a royal flush is to be paid.

## **Caribbean Stud Poker in the United Kingdom**

Caribbean Stud Poker differs slightly in the United Kingdom, and most parts of Europe, from the US. The game is officially known as "Casino Five Card Stud Poker", and not all casinos have the jackpot prize. Those which do have the prize, usually the large chain groups, officially call the game "Casino Jackpot Five Card Stud Poker". In both instances, the game is commonly referred to as "Casino Stud Poker".

The basic rules are the same in the UK as the US, although the payouts differ - the maximum bet is generally £100 on the ante and £200 on the raise, and all payouts are paid on the raise, meaning the maximum payout can potentially be £10,000 (a Royal Flush pays at the same odds, 50:1, as a Straight Flush).

Casinos offering the jackpot generally have the card shuffled by a card shuffling machine - the cards are then removed and dealt out by the dealer, or croupier. Independent and small casinos generally have the croupier shuffle the cards by hand.

British casinos do not use the chip dropper system; instead, a £1 chip is placed on a small plastic circle on the table, which lights up. The croupier then presses a button on a panel in front of them, which keeps the lights lit up once the chips are removed. The dealer removes the chips, and can then tell which players are playing the jackpot game and which are not.

If the dealer does not show an Ace/King, hands playing the jackpot must be turned over, face up, and shown to the dealer and table. If the player is not playing the jackpot prize, the cards are not shown.

## **Player Strategy**

Using optimal strategy the house edge is 5.224% of the player's ante bet. This strategy can be complicated and does not lend itself to practical use in a casino. Using a strategy of raising with Ace/King/Jack/8/3 or better the house edge is 5.316%, very close to the optimal strategy house edge.

Knowledge of what other players hold can decrease the house edge. It has been estimated with the knowledge of 6 other player's hands (30 cards) and associated optimal strategy the player can gain an edge of 2.3%. Given that sharing information is against the rules and that

a computer would be needed to calculate the appropriate strategy it is unlikely this could ever be achieved in a real life casino.

## See also

- Poker
- 

Categories: Stud poker

## Five-card stud

*Five-card stud* is probably the earliest form of the card game, stud poker, originating during the American Civil War, but is less commonly played today than seven-card stud and other games. It is still a popular game in a few locations such as South Africa (where it is played with a stripped deck). In Finland a specific version of five-card stud called Sökö (Canadian stud or Scandinavian stud) is still quite popular. The word sökö is also used for checking in Finland ("I check" = "minä sökötän").

The description below assumes that you are familiar with the general game play of poker, and with hand values (both high and low variations). We also make no assumptions about what betting structure is used. Unlike seven-card stud, five-card stud plays very well at no limit and pot limit, though fixed limit and spread limit games are still more common (with higher limits in the later betting rounds). It is typical to use a small ante and a bring-in.

## Description of play

Play begins with each player being dealt one card face down, followed by one card face up (beginning as usual with the player to the dealer's left). If played with a bring-in, the player with the lowest-ranking upcard must pay the bring in, and betting proceeds after that. If two players have equally ranked low cards, suit rankings may be used to break the tie. If there is no bring-in, then the first betting round begins with the player showing the highest-ranking upcard, who may check. In this case, suit should not be used to break ties; if two players have the same high upcard, the one first in clockwise rotation from the dealer acts first.

After the first betting round is complete, another face-up card is dealt to each player (after a burn card, starting with the player to the dealer's left, as will all subsequent rounds). Betting now begins with the player whose upcards make the best poker hand (since fewer than five cards are face up, this means no straights, flushes, or full houses). On this and subsequent betting rounds, the player to act first may check or bet up to the game's limit. The second betting round is followed by a third upcard to each player and a third betting round, again starting with the player with the best poker hand showing (thus, the first player

to act on each round may change). A fourth face-up card and fourth betting round is followed by a showdown, if necessary (it usually won't be--most deals of five-card stud end early when a player bets and gets no calls).

Here's a sample deal. Assume that a game is being played by four players: Alice, who is dealing, Bob, who is sitting to her left, Carol to his left, and David to Carol's left. Alice deals one card face down to each player, followed by one card face up to each player, beginning with Bob and ending with herself. Bob is dealt the 4', Carol the Kf, David the 4f, and Alice the 9c. Because they had earlier agreed to play with a \$1 bring-in, David is required to start the betting with a \$1 bring-in (his 4f is lower than Bob's 4' by suit). He has the option to open the betting for more, but he chooses to bet only the required \$1. The bring-in sets the current bet amount to \$1, so Alice cannot check. She decides to call. Bob folds, indicating this by turning his upcard face down and discarding his cards. Carol raises to \$3. David folds (forfeiting his bring-in), and Alice calls. Alice now deals a second face-up card to each remaining player: Carol is dealt the Jc, and Alice the Ke. Alice's two face-up cards make a poker hand of no pair, K-9 high, and Carol has K-J high, so it is Carol's turn to bet. She checks, as does Alice, ending the betting round. Another face up card is dealt: Carol gets the 3e, and Alice gets the Kc. Alice now has a pair of kings showing, and Carol still has no pair, so Alice bets first. She bets \$5, and Carol folds. Alice wins the pot without a showdown.

## High-low and other variants

The game can be played with low hand values, in which case the best low hand showing starts each betting round instead of the best high hand showing. Also, the highest-ranking card must pay the bring-in if it is played with a bring-in. If played high-low split, the highest showing hand always acts first.

The fifth and final card is dealt face down in some games. Otherwise play is identical (the player who acted first on round three will therefore act first again on round four since no one's exposed hand has changed). This game is described as "one down, three up, one down" or simply "1-3-1", while traditional five-card stud is called "one down, four up".

See stud poker for many more variations.

Categories: Stud poker

## Roll your own

*Roll your own* is poker jargon used for a particular ruleset in certain poker variants, particularly in stud poker.

In traditional stud poker games, cards are simply dealt to each player, either face up or face down according to the rules of the game being played, followed by betting. In roll your own games this is different in one of three possible ways. These are called:

- simultaneous choose-after
- in turn choose-after

- choose-before

In simultaneous choose-after in every round where an upcard is normally dealt, each player is instead dealt a downcard. All players then look at all of their downcards and choose one to turn face up, then all players turn their chosen card at once.

In in turn choose-after the game begins the same way with each player being dealt a downcard, but then the first player to act (determined by the rules of the particular game) turns over his choice of upcard, then the next player can use that information to decide which of his cards to turn up, and then all players follow in turn.

Choose-before is always played in turn. On upcard rounds, before a card is dealt to each player, that player must choose whether he wants to receive it up or down. If he wants to receive it up, he says so. If he wants to receive it down, he must first turn one of his already-dealt downcards face up, so that all players will still have the same number of up and down cards. When using this method cards are not dealt to players starting at the dealer's left as usual, but start with the high hand showing.

Roll your own should not be confused with rollouts, which, while similar, is fundamentally different.

**Categories:** Poker gameplay and terminology | Stud poker

## Seven-card stud

*Seven-card stud* is a variant of stud poker. Until the recent increase in popularity of Texas hold 'em, seven-card stud was the most popular poker variant in home games across the United States, and in casinos in the eastern part of the country. Seven-card stud is also played in western American casinos, but Texas hold 'em is far more popular there. Two to eight players can play.

The descriptions below assume that you are familiar with the general game play of poker, and with hand values. They also make no assumptions about what poker betting structure is used. In casino play, it is common to use a small ante and bring-in. In home games, it is typical to use an ante only.

### Quick play overview

Play proceeds as follows ("player" refers only to those who have not folded and are still in the game), with betting rounds in-between.

Betting is clockwise, the player with the highest poker hand showing starts (ie 2-2 beats K-Q).

- 2 cards dealt face down to each player, 1 card dealt face up
- upcard to each player
- upcard to each player
- upcard to each player
- downcard to each player

- showdown

Mnemonic: Two down, four up, one down.

## **In-depth play rules**

The game begins with each player being dealt two cards face down and one card face up. If played with a bring-in, the player with the lowest-ranking upcard pays the bring-in, and betting proceeds after that in normal clockwise order. The bring-in is considered an open, so the next player in turn may not check. If two players have equally ranked low cards, suit may be used to break the tie and assign the bring-in (see high card by suit). If there is no bring-in, then the first betting round begins with the player showing the highest-ranking upcard, who may check. In this case, suit should not be used to break ties. If two players have the same high upcard, the one first in clockwise rotation from the dealer acts first.

After the first betting round, another upcard is dealt to each player (after a burn card, and starting at the dealer's left as will all subsequent rounds), followed by a second betting round beginning with the player whose upcards make the best poker hand. Since fewer than five cards are face up, this means no straights, flushes, or full houses will count for this purpose. On this and all subsequent betting rounds, the player whose face-up cards make the best poker hand will act first, and may check or bet up to the game's limit.

The second round is followed by a third upcard and betting round, a fourth upcard and betting round, and finally a downcard, a fifth betting round, and showdown if necessary. Seven-card stud can be summarized therefore as "two down, four up, one down". Upon showdown, each player makes the best five-card poker hand he can out of the seven cards he was dealt.

You may note that seven cards to eight players plus four burn cards makes 60 cards, and there are only 52 in the deck. In most games this is not a problem because several players will have folded in early betting rounds. But there are certainly low-stakes home games where few if any players fold. If this is the case in your game, you may want to limit the game to seven players. If the deck does become exhausted during play, previously-dealt burn cards can be used when only a few cards are needed to complete the deal. If even those are not sufficient, then on the final round instead of dealing a downcard to each player, a single community card is dealt to the center of the table, and is shared by everyone (that is, each player treats it as his seventh card). Under no circumstances can any discarded card from a folded hand be "recycled" for later use. Unlike draw poker, where no cards are ever seen before showdown, stud poker players use the information they get from face-up cards to make strategic decisions, and so a player who sees a certain card folded is entitled to make decisions knowing that the card will never appear in another opponent's hand.

## **Sample deal**



The sample deal below assumes that a game is being played by four players: Alice, who is dealing in the examples; Bob, who is sitting to her left; Carol to his left; and David to Carol's left.

All players ante \$.25. Alice deals each player two downcards and one upcard, beginning with Bob and ending with herself. Bob is dealt the 4<sup>♠</sup>, Carol the K<sup>♠</sup>, David the 4<sup>♠</sup>, and Alice the 9<sup>♠</sup>. Because they are playing with a \$1 bring-in, David is required to start the betting with a \$1 bring-in (his 4<sup>♠</sup> is lower than Bob's 4<sup>♠</sup> by suit). He had the option to open the betting for more, but he chose to bet only the required \$1. The bring-in sets the current bet amount to \$1, so Alice cannot check. She decides to call. Bob folds, indicating this by turning his upcard face down and discarding his cards. Carol raises to \$3. David folds, and Alice calls.

Alice now deals a second face-up card to each remaining player: Carol is dealt the J<sup>♠</sup>, and Alice the K<sup>♠</sup>. Alice's two upcards make a poker hand of no pair, K-9-high, and Carol has K-J-high, so it is Carol's turn to bet. She checks, as does Alice, ending the betting round. Another face up card is dealt: Carol gets the T<sup>♠</sup>, (T = 10) and Alice gets the K<sup>♠</sup>. Alice now has a pair of kings showing, and Carol still has no pair, so Alice bets first. She bets \$5, and Carol calls. On the next round, Carol receives the T<sup>♠</sup>, making her upcards K-J-T-T. Alice receives the 3<sup>♠</sup>. Alice's upcards are 9-K-K-3; the pair of kings is still higher than Carol's pair of tens, so she bets \$5 and Carol calls. Each player now receives a downcard. It is still Alice's turn to bet because the downcard did not change either hand. She checks, Carol bets \$10, and Alice calls.

That closes the last betting round, and both players remain, so there is a showdown. Alice shows her cards: 9<sup>♠</sup> 5<sup>♠</sup> 9<sup>♠</sup> K<sup>♠</sup> K<sup>♠</sup> 3<sup>♠</sup> 5<sup>♠</sup>. The best five-card poker hand she can play is K-K-9-9-5, making two pair, kings and nines. Carol shows Q<sup>♠</sup> 2<sup>♠</sup> K<sup>♠</sup> J<sup>♠</sup> T<sup>♠</sup> A<sup>♠</sup>. She can play A-K-Q-J-T, making an ace-high straight, and so Carol wins the pot.

See stud poker for many variations.

Categories: Stud poker

## Twist

*Twist* is poker jargon for a round with specific rules which is sometimes used in the poker variant stud poker.

One can replace any round of (or add a round to) a stud poker game with a twist round, in which each player is offered the option to replace exactly one card in his hand with a new one from the remaining deck stub. This is similar to the draw phase of draw poker, differing in the following way: if the player chooses to replace a downcard, he discards it and is dealt a replacement card also face down; if he wishes to replace an upcard, he discards it and receives the replacement face up. On a twist round, players make the decision of which card to replace in turn starting with the player who bet first on the preceding round (usually the player whose upcards make the best hand), discarding the card they choose to replace, if any. After everyone has made their decision, the replacement cards are dealt starting at the dealer's left as usual.

Sometimes replacement cards are "bought" by requiring a player to add a fixed amount to the pot to be able to get a replacement.

# Texas hold 'em

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*Texas hold 'em* (also *hold'em*, *holdem*) is the most popular of the community card poker games. It is also the most popular poker variant played in most casinos in the United States. Its no-limit betting form is used in the main event of the World Series of Poker (WSOP), as seen on ESPN, and the World Poker Tour, seen on The Travel Channel, and is widely regarded as the premier poker game.

Although it can theoretically be played by up to 22 players (or 23 if burn cards are not used), it is generally played with between 2 and 10 people. It is one of the most positional of all poker variants, since the order of betting is fixed throughout all betting rounds. Hold 'em is commonly played outside of the United States, but seven-card stud, Omaha hold 'em and other games may be more popular in some places.

## Origins

There is no precise information on where or when Texas hold 'em Poker was first played. According to legend, the earliest game played was in Robstown, Texas, in the early 1900s and it first came to Dallas, Texas in 1925. Texas hold 'em was introduced to Las Vegas by a group of Texan gamblers and card players, including Crandell Addington, Doyle Brunson,

and Amarillo Slim. [1] The game was later introduced to Europe by bookmakers Terry Rogers and Liam "The Gentleman" Flood.[2]

## **Rules**

The descriptions below assume a familiarity with the general game play of poker, and with poker hands. For a general introduction to these topics, see [Poker](#), [Poker hand](#), [Poker probability](#), and [Poker jargon](#).

## **Objective**

Like most variants of poker, the objective of Texas hold 'em is to win pots, where a pot is the sum of the money bet by oneself and other players in a hand. A pot is won either at the showdown by forming the best five card poker hand out of the seven cards available, or by betting to cause other players to fold and abandon their claim to the pot.

## Betting structures

*See the article on betting for a detailed explanation of betting in these variations of hold 'em.*

Hold 'em is normally played using small and big blind bets. Antes may be used in addition to blinds, particularly in later stages of tournament play. A dealer button is used to represent the player in the dealer position; the dealer button rotates clockwise after each hand, changing the position of the dealer and blinds. The small blind is posted by the player to the left of the dealer and is usually equal to half of the big blind. The big blind, posted by the player to the left of the small blind, is equal to the minimum bet. In tournament poker, the blind/ante structure periodically increases as the tournament progresses. (In some cases, the small blind is some other fraction of a small bet, e.g. \$10 is a common small blind when the big blind is \$15. The double-blind structure described above is relatively recent; until the 1980s, a single-blind structure was most common.)

The three most common variations of hold 'em are **limit** hold 'em, **no-limit** hold 'em and **pot-limit** hold 'em. Limit hold 'em has historically been the most popular form of hold 'em found in casino live action games in the United States. In limit hold 'em, bets and raises during the first two rounds of betting (pre-flop and flop) must be equal to the big blind; this amount is called the small bet. In the next two rounds of betting (turn and river), bets and raises must be equal to twice the big blind; this amount is called the big bet. No-limit hold 'em is the form most commonly found in televised tournament poker and is the game played in the main event of the World Series of Poker. In no-limit hold 'em, players may bet or raise any amount over the minimum raise up to all of chips the player has at the table (called an all-in bet). In pot-limit hold 'em, the maximum raise is the current size of the pot.

## Play of the hand

Play begins with each player being dealt two cards face down. These cards are the player's hole or pocket cards. These are the only cards each player will receive individually, and they will only (possibly) be revealed at the showdown, making Texas hold 'em a closed poker game. The hand begins with a "pre-flop" betting round, beginning with the player to the left of the big blind (or the player to the left of the dealer, if no blinds are used) and continuing clockwise.

After the pre-flop betting round, assuming there remains at least two players taking part in the hand, the dealer deals a flop, three face-up community cards. The flop is followed by a second betting round. This and all subsequent betting rounds begin with the player to the dealer's left and continue clockwise.

After the flop betting round ends a single community card (called the turn or fourth street) is dealt, followed by a third betting round. A single community card (called the river or fifth street) is dealt, followed by a fourth betting round and the showdown, if necessary.

## The showdown

If a player bets and all other players fold, then the remaining player is awarded the pot and is not required to show his hole cards. If two or more players remain after the final betting round, a showdown occurs. On the showdown, each player plays the best five-card hand he can make from the seven cards comprising his two hole cards and the board (the five community cards). A player may use both of his own two hole cards, only one, or none at all, to form his final five-card hand. If the five community cards form the player's best hand, then the player is said to be playing the board and can only hope to split the pot, since the other player can also use the same five cards to construct the same hand.

If the best hand is shared by more than one player (e.g. if no player is able to beat the board), then the pot is split equally amongst all remaining players, with any extra chips going to the person closest to the button in clockwise order. However, it is common for players to have closely-valued, but not identically ranked hands. In particular, kickers are often needed to break ties. Nevertheless, one must be careful in determining the best hand. The goal is to make the best five-card hand; if the hand involves fewer than five cards, such as two pair or three of a kind, then kickers are used to settle ties (see the second example below.) Straights sometimes split the pot.

The best possible hand given the five community cards is referred to as the nuts. The lowest possible nuts is three Queens (this occurs with 2 3 7 8 Q on the board with no more than two cards of any one suit).

## Examples

### Sample showdown

Here's a sample showdown:

Board

4c K` **4e** 8` 7`

Bob Carol Ted Alice

Ac 4f A` 9` Ke Kf 5f 6f

Each player plays the best 5 card hand they can make with the 7 cards available. They have:

Bob 4c **4e** 4f Ac K` Three 4s, A and K kickers

Carol A` K` 9` 8` 7` A-high flush

Ted K` **Ke Kf** 4c **4e** Full house

Alice **8` 7`** 6f 5f 4e 8-high straight

In this case, Ted's full house is the best hand.

## Sample hand

Here's a sample deal involving our four players. The players' individual hands will not be revealed until the showdown, to give a better sense of what happens during play:

*Compulsory bets:* Alice is the dealer. Bob, to Alice's left, posts a small blind of \$1, and Carol posts a big blind of \$2.

*Pre-flop:* Alice deals two hole cards face down to each player, beginning with Bob and ending with herself. Ted must act first because he is the first player after the big blind. He cannot check, since the \$2 big blind plays as a bet, so he folds. Alice calls the \$2. Bob adds an additional \$1 to his \$1 small blind to call the \$2 total. Carol's blind is "live" (see blind), so she has the option to raise here, but she checks instead, ending the first betting round. The pot now contains \$6, \$2 from each of three players.

*Flop:* Alice now deals the flop of three face-up community cards,  $9c\ Kc\ 3e$ . On this round, as on all subsequent rounds, the player on the dealer's left begins the betting. In this case it is Bob who checks. Carol opens for \$2, Ted has already folded and Alice raises another \$2, making the total bet now facing Bob \$4. He calls (puts in \$4, \$2 to match Carol's initial bet and \$2 to match Alice's raise). Carol calls as well, putting in her \$2. The pot now contains \$18, \$6 from the last round and \$4 from three players this round.

*Turn:* Alice now deals the turn card face up. It is the  $5'$ . Bob checks, Carol checks, and Alice checks; the turn has been checked around. The pot still contains \$18.

*River:* Alice deals the final river card, the  $9f$ , making the final board  $9c\ Kc\ 3e\ 5'\ 9f$ . Bob bets \$4, Carol calls, and Alice folds (Alice's holding was  $Ac\ 7c$ ; she was hoping the river card would be a club to make her a flush).

*Showdown:* Bob shows his hand of  $Q'\ 9e$ , so the best five-card hand he can make is  $9c\ 9f\ 9e\ Kc\ Q'$ , for three 9's, with a King and a Queen as kickers. Carol shows her cards of  $K'\ Je$ , making her final hand  $Kc\ K'\ 9c\ 9f\ Je$  for two pair, Kings and 9's, with a Jack kicker. Bob wins the showdown and the \$26 pot.

## Kickers and ranks

The following is another situation which illustrates the importance of breaking ties with kickers and card ranks, as well as the use of the five-card rule. After the turn, the board and players' hole cards are as follows (though none of the players know each other's hole cards):

Board (after the turn)

$8'\ Qc\ 8e\ 4c$

Bob Carol Ted Alice

$Ke\ Q'\ Qe\ 10f\ Jc\ 2c\ 10c\ 9c$

At the moment, Bob is in the lead with a hand of  $Q'\ Qc\ 8'\ 8e\ Ke$ , making two pair, Queens and 8's, with King kicker. This beats Carol's hand of  $Qe\ Qc\ 8'\ 8e\ 10f$  by virtue of his King kicker. Both Alice and Ted are hoping the final card is a club, which will make them both a flush, but in that case, Ted would have the higher flush and win the showdown. For example,

if the final card was the 7c, Ted's flush would be Q-J-7-4-2, while Alice's would be Q-10-9-7-4. Alice could still win, though, if the final card were the Jf, as that would give her a Queen-high straight. On this deal, however, the final card was the A`, which didn't help either of them. Bob and Carol still each have two pair, but notice what happened: both of them are now entitled to play the final Ace as their fifth card, making their hands both two pair, Queens and 8's, with an Ace kicker. Bob's King no longer plays, because the Ace on the board plays as the fifth card in both hands, and a hand is only composed of five cards. They therefore split the pot.

## Starting hand terminology and notation

**Main article:** Texas hold 'em hands

There are  $(52 \times 51)/2 = 1,326$  distinct possible combinations of two hole cards from a standard 52-card deck. However, since suits are only relevant for flushes, many of these hands are indistinguishable from the point of view of pre-flop strategy. In fact, considering suits to be equivalent unless both cards are the same suit, there are precisely 169 distinct possible starting hands in hold 'em.[3]

As an example, although Jc Jc and Jf Jf are distinct combinations of hole cards, they are indistinguishable as starting hands. Any starting hand comprising two Jacks is called **pocket jacks** and is denoted JJ. Similarly, any starting hand comprised of two Aces is called pocket Aces and is denoted AA, and any starting hand comprised of two 7's is called pocket sevens and is denoted 77. Each of these starting hands is called a pocket pair or a wired pair.

The starting hands which are not pocket pairs fall into two classes – the suited hands and the unsuited hands. An example of a suited hand is 8` 7`. Any starting hand comprised of an 8 and a 7 of the same suit is called 8-7 suited and is denoted 87s, where "s" is an abbreviation for "suited". An example of an unsuited hands is Qc 9f. Any starting hand comprised of a Queen and a 9 of different suits is called queen-nine offsuit and is denoted Q9 (or sometimes Q9o, where "o" is an abbreviation for "offsuit"). Remember, an "s" always denotes a suited starting hand, while the absence of an "s" always denotes an offsuit starting hand.

In almost all poker writing, the rank of 10 is abbreviated with the letter "T", so that all the ranks can be written with a single character, unless cards are featured pictorially when "10" is often used.

Consecutive cards of the same suit are called suited connectors. Many starting hands have colloquial names. See also List of slang names for poker hands.

## Strategy

*See Poker strategy for a more detailed discussion of general poker strategy*

Most poker authors recommend a tight-aggressive approach to playing Texas hold 'em. This strategy involves playing relatively few hands (tight), but betting and raising often with those that one does play (aggressive). Although this strategy is often recommended, some professional players successfully employ other strategies as well.[4] While most poker

authors focus on playing primarily premium starting hands, some authors claim that the importance of starting hands is overstated.[5]

Almost all authors agree that position is an important element of Texas hold 'em strategy. Players who act later have more information than players who act earlier. As a result, players typically play fewer hands from early positions than later positions.

The no-limit and fixed limit versions of hold 'em are strategically very different. Doyle Brunson states, "In fact, the games are so different that there are *not* many players who rank with the best in both types of hold 'em. Many no-limit players have difficulty gearing down for limit, while limit players often lack the courage and 'feel' necessary to excel at no-limit." [6] Because the size of bets are restricted in limit games, the ability to bluff is somewhat curtailed. Since one is not (usually) risking all of one's chips in limit poker, players are sometimes advised to take more chances.[7]

Lower stakes limit games also exhibit different properties than higher stakes games. Small stakes games often involve more players in each hand and can vary from extremely passive (little raising and betting) to extremely aggressive (many raises). The difference of small stakes games have resulted in several books dedicated to only those games.[8]

## **In popular culture**

In 1998, the movie Rounders starring Matt Damon and Edward Norton gave moviegoers a romantic view of poker as a way of life. Texas hold 'em was the main game played during the movie and the no-limit variety was described, following Doyle Brunson, as the "Cadillac of Poker". There was also a clip of the classic showdown between Johnny Chan and Erik Seidel from the 1988 World Series of Poker incorporated into the film.

CommanderBond.net reports that the centerpiece card game in the next James Bond film, Casino Royale, will be no-limit Texas hold 'em instead of Baccarat as in the original Ian Fleming novel.[9]

## **Spectator sport**

Hold 'em first caught the public eye as a spectator sport in the United Kingdom with the Late Night Poker TV show in 1999. The popularity of the show led to lipstick cameras also being used for American poker programs.

In 2003, hold 'em exploded in popularity as a spectator sport in the United States. This was due to several factors, including the introduction of lipstick cameras that allowed the television audience to see the players' hidden cards. ESPN's coverage of the 2003 World Series of Poker featured the unexpected victory of Internet player Chris Moneymaker, an amateur player who gained admission to the tournament by winning a series of online tournaments. Moneymaker's victory initiated a sudden surge of interest in the WSOP, based on the egalitarian idea that anyone – even a rank novice – can become a world champion.

In 2003, there were 839 entrants in the WSOP Main Event. In 2004, that number tripled. The crowning of the 2004 WSOP champion, Greg "Fossilman" Raymer, a patent attorney



from Connecticut whose trademark holographic sunglasses have become legendary, further fueled the popularity of the event among amateur (and particularly internet) players. In the 2005 Main Event, an unprecedented 5,619 entrants vied for a first prize of \$7,500,000. The winner, Joseph Hachem of Australia, was a semi-professional player. The runner-up, Steve Dannenmann, an amateur from Maryland, opined that he was only "the fourth or fifth best player" in his regular home game.

Two additional hold 'em series debuted in 2003, the World Poker Tour and Celebrity Poker Showdown. All three of these shows are still currently in production and garner a large and loyal viewership.

With the ability to edit a tournament that lasts days into just a few hours, ESPN's World Series of Poker focuses on showing how various star players fared in each event. Key hands from throughout the many days of each event are shown, and similar, highly edited coverage of final tables is also provided.

The **World Poker Tour** does not offer general coverage of the multi-day poker tournaments. Instead, WPT covers only the action at the final table of each event. With aggressive play and increasing blinds and antes, the important action from a single table can easily be edited into a two hour episode. Although the tournament fate of fewer stars are chronicled this way, it allows the drama to build more naturally toward the final heads up showdown.

Celebrity Poker Showdown coverage is a single table like World Poker Tour, however, the players are much less skilled and are invited to participate instead of winning their way on.

## See also

- Poker
- Poker hand
- Texas hold 'em hands
- Poker probability
- Poker probability (Texas hold 'em)
- Poker jargon
- Poker strategy

## Notes

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## Poker probability (Texas hold 'em)

In *poker*, the *probability* of many events can be determined by direct calculation. This article discusses how to compute the probabilities for many commonly occurring events in the game of *Texas hold 'em* and provides some probabilities and odds[1] for specific situations. In most cases, the probabilities and odds are approximations due to rounding.

When calculating probabilities for a card game such as Texas Hold 'em, there are two basic approaches.

1. Determine the number of outcomes that satisfy the condition being evaluated and divide this by the total number of possible outcomes. For example, there are six outcomes (ignoring order) for being dealt a pair of aces in Hold' em: {A`, Ae}, {A`, Af}, {A`, Ac}, {Ae, Af}, {Ae, Ac}, and {Af, Ac}. There are 52 ways to pick the first card and 51 ways to pick the second card and two ways to order the two cards yielding  $52 \times 51 \div 2 = 1,326$  possible outcomes of being dealt two cards (also ignoring order). This gives a probability of being dealt two aces of  $6/1326 = 1/221$ .

2. Use conditional probabilities, or in more complex situations, a decision graph. There are 4 ways to be dealt an ace out of 52 choices for the first card

resulting in a probability of  $4/52 = 1/13$ . There are 3 ways of getting dealt an ace out of 51 choices on the second card after being dealt an ace on the first card for a probability of  $3/51 = 1/17$ . The conditional probability of getting dealt two aces is the product of the two probabilities:  $1/13 \times 1/17 = 1/221$ . (Note that in this case the total is not divided by 2 ways of ordering the cards because both cards must be an ace—reordering would still require the first and second cards to be an ace, so there is only one way to order the two cards.)

Often, the key to determining probability is selecting the best approach for a given problem. This article uses both of these approaches.

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## Starting hands

The probability of being dealt various starting hands can be explicitly calculated. In Texas Hold 'em, a player is dealt two down (or hole) cards. The first card can be any one of 52 playing cards in the deck and the second card can be any one of the 51 remaining cards. This gives  $52 \times 51 \div 2 = 1,326$  possible starting hand combinations. (Since the order of the cards is not significant, the 2,652 combinations are divided by the 2 ways of ordering two cards.)

The 1,326 starting hands can be reduced for purposes of determining the probability of starting hands for Hold 'em—since suits have no relative value in poker, many of these hands are identical in value before the flop. The only factors determining the strength of a starting hand are the ranks of the cards and whether the cards share the same suit. Of the 1,326 combinations, there are 169 distinct starting hands grouped into three shapes: 13 pocket

pairs (paired hole cards),  $13 \times 12 \div 2 = 78$  suited hands and 78 unsuited hands;  $13 + 78 + 78 = 169$ . The relative probability of being dealt a hand of each given shape is different. The following shows the probabilities and odds of being dealt each type of starting hand.

Hand shape	Number of hands	Permutations for each hand	Combinations	<i>Dealt specific hand</i>		<i>Dealt any hand</i>	
				Probability	Odds	Probability	Odds
Pocket pair	13					$13 \times 6 = 78$	220 : 1
Suited cards	78					$78 \times 4 = 312$	331 : 1
Unsuited cards	78					$78 \times 12 = 936$	110 : 1
							16 : 1
							3.25 : 1
							0.41 : 1

Here are the probabilities and odds of being dealt various other types of starting hands.

Hand	Probability	Odds
AKs (or any specific suited cards)	0.00302	331 : 1
AA (or any specific pair)	0.00453	220 : 1
AKs, KQs, QJs, or JTs	0.0121	81.9 : 1
AK (or any specific non-pair)	0.0121	81.9 : 1
AA, KK, or QQ	0.0136	72.7 : 1
Suited cards, J or better	0.0181	54.3 : 1
AA, KK, QQ, JJ, or TT	0.0226	43.2 : 1
Suited cards, T or better	0.0302	32.2 : 1
Suited connectors	0.0392	24.5 : 1
Connected cards, T or better	0.0483	19.7 : 1
Any 2 cards with rank at least Q	0.0498	19.1 : 1
Any 2 cards with rank at least J	0.0905	10.1 : 1
Any 2 cards with rank at least T	0.143	5.98 : 1
Connected cards (cards of consecutive rank)	0.157	5.38 : 1
Any 2 cards with rank at least 9	0.208	3.81 : 1
Not connected nor suited, at least one 2-9	0.534	0.873 : 1

## Starting hands heads up

For any given starting hand, there are  $50 \times 49 \div 2 = 1,225$  hands that an opponent can have before the flop. (After the flop, the number of possible hands an opponent can have is reduced by the three community cards revealed on the flop to  $47 \times 46 \div 2 = 1,081$  hands.)

possible head-to-head match ups in Hold 'em. (The number of total number of match ups is divided by the two ways that two hands can be distributed between two players to give the number of unique match ups.) However, since there are only 169 distinct starting hands, there are  $169 \times 1,225 = 207,025$  distinct head-to-head match ups.[2]

It is useful and interesting to know how two starting hands compete against each other heads up before the flop. In other words, we assume that neither hand will fold, and we will see a showdown. This situation occurs quite often in no limit and tournament play. Also, studying these odds helps to demonstrate the concept of hand domination, which is important in all community card games.

This problem is considerably more complicated than determining the frequency of dealt hands. To see why, note that given both hands, there are 48 remaining unseen cards. Out of these 48 cards, we can choose any 5 to make a board.

possible boards that may fall. In addition to determining the precise number of boards that give a win to each player, we also must take into account boards which split the pot, and split the number of these boards between the players.

The problem is trivial for computers to solve by brute force search; there are many software programs available that will compute the odds in seconds. A somewhat less trivial exercise is an exhaustive analysis of all of the head-to-head match ups in Texas Hold 'em, which requires evaluating each possible board for each distinct head-to-head match up, or  $1,712,304 \times 207,025 = 354,489,735,600$  (H354 billion) results.[2]

## Head-to-head starting hand matchups

When comparing two starting hands, the head-to-head probability describes the likelihood of one hand beating the other after all of the cards have come out. Head-to-head probabilities vary slightly for each particular distinct starting hand matchup, but the approximate average probabilities, as given by Dan Harrington [p.125], are summarized in the following table.

Favorite-to-underdog matchup	Probability	Odds for
Pair vs. 2 undercards	0.83	4.9 : 1
Pair vs. lower pair	0.82	4.5 : 1
Pair vs. 1 overcard, 1 undercard	0.71	2.5 : 1
2 overcards vs. 2 undercards	0.63	1.7 : 1
Pair vs. 2 overcards	0.55	1.2 : 1

These odds are general approximations only derived from averaging all of the hand matchups in each category. The actual head-to-head probabilities for any two starting hands vary depending on a number of factors, including:

- Suited or unsuited starting hands;
- Shared suits between starting hands;
- Connectedness of non-pair starting hands;
- Proximity of card ranks between the starting hands (lowering straight potential);
- Proximity of card ranks toward A or 2 (lowering straight potential);
- Possibility of split pot.

For example,  $A^s Ac$  vs.  $K^s Qc$  is 87.65% to win (0.49% to split), but  $A^s Ac$  vs.  $7f 6f$  is 76.81% to win (0.32% to split).

The mathematics for computing all of the possible matchups is quite complex. However, a computer program can perform a brute force evaluation of the 1,712,304 possible boards for any given pair of starting hands in seconds.

## Starting hands against multiple opponents

For calculating probabilities we can ignore the distinction between the two opponents holding  $A^s Jc$  and  $8e 8c$  and the opponents holding  $8e 8c$  and  $A^s Jc$ . The number of ways that hands can be distributed between  $n$  opponents is  $n!$  (pronounced  $n$  factorial).

Opponents	Number of possible hand combinations
1	1,225
2	690,900
3	238,360,500
4	56,372,258,250
5	$H9.7073 \times 10_{12}$ (more than 9.7 trillion)
6	$H1.2620 \times 10_{15}$ (more than 1.2 quadrillion)
7	$H1.2674 \times 10_{17}$ (more than 126 quadrillion)
8	$H9.9804 \times 10_{18}$ (almost 10 quintillion)
9	$H6.2211 \times 10_{20}$ (more than 622 quintillion)

An exhaustive analysis of all of the match ups in Texas Hold 'em of a player against nine opponents requires evaluating each possible board for each distinct starting hand against each possible combination of hands held by nine opponents

If you were able to evaluate one trillion ( $10_{12}$ ) combinations every second, it would take over 670 million years to evaluate all of the hand/board combinations. While it is possible to significantly reduce the total number of combinations by pruning combinations with identical properties, the total number of situations is still well beyond the number that can be evaluated by brute force. For this reason, most software programs compute probabilities and expected values for Hold 'em poker hands against multiple opponents by simulating the play of thousands or even millions of hands to determine statistical probabilities.

## Dominated hands

When evaluating a hand before the flop, it's useful to have some idea of how likely the hand is dominated. A dominated hand is a hand that is beaten by another hand (the dominant hand) and is extremely unlikely to win against it. Often the dominated hand has only a single card rank that can improve the dominated hand to beat the dominant hand (not counting straights and flushes.) For example, *KJ* is dominated by *KQ*—both hands share the king and the queen kicker is beating the jack kicker. Barring a straight or flush, the *KJ* will need a jack on the board to improve against the *KQ* (and will still be losing if a queen comes on the board also.) A pocket pair is dominated by a pocket pair of higher rank.

## Pocket pairs

Barring a miracle straight or flush, a pocket pair needs to make three of a kind to beat a higher pocket pair. See the section "After the flop" for the odds of a pocket pair improving to three of a kind.

To calculate the probability that another player has a higher pocket pair, first consider the case against a single opponent. The probability that a single opponent has a higher pair can be stated as the probability that the first card dealt to the opponent is a higher rank than the pocket pair and the second card is the same rank as the first. Where *r* is the rank of the pocket pair (assigning values from 2–10 and J–A = 11–14), there are  $(14 - r) \times 4$  cards of higher rank. Subtracting the two cards for the pocket pair leaves 50 cards in the deck. After the first card is dealt to the player there are 49 cards left, 3 of which are the same rank as the first.

The following approach extends this equation to calculate the probability that one or more other players has a higher pocket pair.

1. Multiply the base probability for a single player for a given rank of pocket pairs by the number of opponents in the hand;
2. Subtract the adjusted probability that more than one opponent has a higher pocket pair. (This is necessary because this probability effectively gets added to the calculation multiple times when multiplying the single player result.).

The following table shows the probability that before the flop another player has a larger pocket pair when there are one to nine other players in the hand.

Probability of facing a larger pair when holding	Against 1	Against 2	Against 3	Against 4	Against 5	Against 6	Against 7	Against 8	Against 9
KK	0.0049	0.0098	0.0147	0.0196	0.0244	0.0293	0.0342	0.0391	0.0439
QQ	0.0098	0.0195	0.0292	0.0388	0.0484	0.0579	0.0673	0.0766	0.0859
JJ	0.0147	0.0292	0.0436	0.0577	0.0717	0.0856	0.0992	0.1127	0.1259
TT	0.0196	0.0389	0.0578	0.0764	0.0946	0.1124	0.1299	0.1470	0.1637
99	0.0245	0.0484	0.0718	0.0946	0.1168	0.1384	0.1593	0.1795	0.1990
88	0.0294	0.0580	0.0857	0.1125	0.1384	0.1634	0.1873	0.2101	0.2318
77	0.0343	0.0674	0.0994	0.1301	0.1595	0.1874	0.2138	0.2387	0.2619
66	0.0392	0.0769	0.1130	0.1473	0.1799	0.2104	0.2389	0.2651	0.2890
55	0.0441	0.0862	0.1263	0.1642	0.1996	0.2324	0.2623	0.2892	0.3129
44	0.0490	0.0956	0.1395	0.1806	0.2186	0.2532	0.2841	0.3109	0.3334
33	0.0539	0.1048	0.1526	0.1967	0.2370	0.2729	0.3040	0.3300	0.3503
22	0.0588	0.1141	0.1654	0.2124	0.2546	0.2914	0.3222	0.3464	0.3633

The following table gives the probability that a hand is facing two or more larger pairs before the flop.

Probability of facing multiple larger pairs when holding	Against 2	Against 3	Against 4	Against 5	Against 6	Against 7	Against 8	Against 9
KK	< 0.00001	0.00001	0.00003	0.00004	0.00007	0.00009	0.00012	0.00016
QQ	0.00006	0.00018	0.00037	0.00061	0.00091	0.00128	0.00171	0.00220
JJ	0.00017	0.00051	0.00102	0.00171	0.00257	0.00360	0.00482	0.00621
TT	0.00033	0.00099	0.00200	0.00335	0.00504	0.00709	0.00950	0.01226
99	0.00054	0.00164	0.00330	0.00553	0.00836	0.01177	0.01580	0.02045
88	0.00081	0.00244	0.00493	0.00828	0.01253	0.01769	0.02378	0.03084
77	0.00112	0.00341	0.00689	0.01160	0.01758	0.02487	0.03351	0.04353
66	0.00149	0.00454	0.00918	0.01550	0.02353	0.03335	0.04503	0.05861
55	0.00191	0.00583	0.01182	0.01998	0.03040	0.04318	0.05840	0.07619
44	0.00239	0.00728	0.01480	0.02506	0.03821	0.05438	0.07371	0.09635
33	0.00291	0.00890	0.01812	0.03075	0.04698	0.06699	0.09099	0.11919
22	0.00349	0.01068	0.02180	0.03706	0.05673	0.08107	0.11034	0.14484



From a practical perspective, however, the odds of out drawing a single pocket pair or multiple pocket pairs are not much different. In both cases the large majority of winning hands require one of the remaining two cards needed to make three of a kind.

### Hands with one ace

When holding a single ace (referred to as  $Ax$ ), it is useful to know how likely it is that another player has a better ace—an ace with a higher second card. The weaker ace is dominated by the better ace. The probability that a single opponent has a better ace is the probability that they have either  $AA$  or  $Ax$  where  $x$  is a rank other than ace that is higher than the player's second card. When holding  $Ax$ , the probability that the other player has  $AA$  is  $3/50 \times 2/49 \sim 0.00245$ . Where  $x$  is the rank 2–K of the second card (assigning values from 2–10 and J–K = 11–13)

### The flop

The value of a starting hand can change dramatically after the flop. Regardless of initial strength, any hand can flop the nuts—for example, if the flop comes with three 2s, any hand holding the fourth 2 has the nuts. Conversely, the flop can undermine the perceived strength of any hand— $Ac Ae$  would not be happy to see  $8' 9' 10'$  on the flop because of the straight and flush possibilities.

The following are some general probabilities about what can occur on the board. These assume a "random" starting hand for the player.

	<i>Making on flop</i>		<i>Making by turn</i>		<i>Making by river</i>	
	Prob.	Odds	Prob.	Odds	Prob.	Odds
Board consisting of	Three or more of same suit	0.05177	18.3 : 1	0.13522	6.40 : 1	0.23589 3.24 : 1
	Four or more of same suit			0.01056	93.7 : 1	0.03394 28.5 : 1
	Rainbow flop (all different suits)	0.39765	1.51 : 1	0.10550	8.48 : 1	
	Three cards of consecutive rank (but not four consecutive)	0.03475	27.8 : 1	0.11820	7.46 : 1	0.25068 2.99 : 1
	Four cards to a straight (but not five)			0.03877	24.8 : 1	0.18991 4.27 : 1
	Three or more cards of consecutive rank and same suit	0.00217	459 : 1	0.00869	114 : 1	0.02172 45.0 : 1

Three of a kind (but not a full house or four of a kind)	0.00235	424 : 1	0.00935	106 : 1	0.02128	46 : 1
A pair (but not two pair or three or four of a kind)	0.16941	4.90 : 1	0.30417	2.29 : 1	0.42450	1.36 : 1
Two pair (but not a full house)			0.01037	95.4 : 1	0.04716	20.2 : 1

An interesting fact to note from the table above is that more than 60% of the flops will have at least two of the same suit—you're likely to either be drawing to a flush or worried about one.

### Flopping overcards when holding a pocket pair

It is also useful to look at the chances different starting hands have of either improving on the flop, or of weakening on the flop. One interesting circumstance concerns pocket pairs. When holding a pocket pair, overcards (cards of higher rank than the pair) weaken the hand because of the potential that an overcard has paired a card in an opponent's hand. The hand gets worse the more overcards there are on the board and the more opponents that are in the hand because the probability that one of the overcards has paired a hole card increases. To calculate the probability of no overcard, take the total number of outcomes without an overcard divided by the total number of outcomes.

The following table gives the probability that no overcards will come on the flop, turn and river, for each of the pocket pairs from 3 to K.

		<i>Overcard on flop</i>		<i>Overcard by turn</i>		<i>Overcard by river</i>	
		Prob.	Odds	Prob.	Odds	Prob.	Odds
Holding pocket pair	KK	0.7745	0.29 : 1	0.7086	0.41 : 1	0.6470	0.55 : 1
	QQ	0.5857	0.71 : 1	0.4860	1.06 : 1	0.4015	1.49 : 1
	JJ	0.4304	1.32 : 1	0.3205	2.12 : 1	0.2369	3.22 : 1
	TT	0.3053	2.28 : 1	0.2014	3.97 : 1	0.1313	6.61 : 1
	99	0.2071	3.83 : 1	0.1190	7.40 : 1	0.0673	13.87 : 1
	88	0.1327	6.54 : 1	0.0649	14.40 : 1	0.0310	31.21 : 1
	77	0.0786	11.73 : 1	0.0318	30.48 : 1	0.0124	79.46 : 1
	66	0.0416	23.02 : 1	0.0133	74.26 : 1	0.0040	246.29 : 1
	55	0.0186	52.85 : 1	0.0043	229.07 : 1	0.0009	1057.32 : 1
	44	0.0061	162.33 : 1	0.0009	1095.67 : 1	0.0001	8406.78 : 1
	33	0.0010	979.00 : 1	0.0001	15352.33 : 1	0.0000	353125.67 : 1

Notice that there is a better than 35% probability that an ace will come by the river if holding pocket kings, and with pocket queens, the odds are slightly in favor of an ace or a

king coming by the turn, and a full 60% in favor of an overcard to the queen by the river. With pocket jacks, there's only a 43% chance that an overcard won't come on the flop and it's better than 3:1 that an overcard will come by the river.

## After the flop

During play—that is, from the flop and onwards—drawing probabilities come down to a question of outs. All situations which have the same number of outs have the same probability of winning. For example, an inside straight draw (e.g. 34 67 missing the 5 for a straight), and a full house draw (e.g. 66KK drawing for one of the pairs to become three-of-a-kind) are equivalent. Each can be satisfied by four cards—four 5s in the first case, and the other two 6s and other two kings in the second.

The probabilities of drawing these outs are easily calculated. At the flop there remain 47 unseen cards, so the probability is (outs ÷ 47). At the turn there are 46 unseen cards so the probability is (outs ÷ 46). The cumulative probability of making a hand on either the turn or river can be determined as the complement of the odds of not making the hand on the turn and not on the river. The probability of not drawing an out is (47 outs) ÷ 47 on the turn and (46 outs) ÷ 46 on the river; taking the complement of these conditional probabilities gives the probability of drawing the out by the river which

For reference, the probability and odds for some of the more common numbers of outs are given here.

			<i>Make on turn</i>		<i>Make on river</i>		<i>Make on turn or river</i>	
			Prob.	Odds	Prob.	Odds	Prob.	Odds
Likely drawing to	Outs	Inside straight flush; Four of a kind Open-ended	1	0.0213	46.0 : 1	0.0217	45.0 : 1	0.0426 <sup>22.5 : 1</sup>
		straight flush; Three of a kind	2	0.0426	22.5 : 1	0.0435	22.0 : 1	0.0842 <sup>10.9 : 1</sup>
		High pair	3	0.0638	14.7 : 1	0.0652	14.3 : 1	0.1249 <sup>7.01 : 1</sup>
		Inside straight; Full house	4	0.0851	10.8 : 1	0.0870	10.5 : 1	0.1647 <sup>5.07 : 1</sup>
		Three of a kind or two pair	5	0.1064	8.40 : 1	0.1087	8.20 : 1	0.2035 <sup>3.91 : 1</sup>
		Either pair	6	0.1277	6.83 : 1	0.1304	6.67 : 1	0.2414 <sup>3.14 : 1</sup>

Full house or four of a kind; (see note)	7	0.1489	5.71 : 1	0.1522	5.57 : 1	0.2784	2.59 : 1
Inside straight or high pair							
Open-ended straight	8	0.1702	4.88 : 1	0.1739	4.75 : 1	0.3145	2.18 : 1
<b>Flush</b>	9	0.1915	4.22 : 1	0.1957	4.11 : 1	0.3497	1.86 : 1
Inside straight or	10	0.2128	3.70 : 1	0.2174	3.60 : 1	0.3839	1.60 : 1
pair							
Open-ended straight or	11	0.2340	3.27 : 1	0.2391	3.18 : 1	0.4172	1.40 : 1
high pair							
Inside straight or	12	0.2553	2.92 : 1	0.2609	2.83 : 1	0.4496	1.22 : 1
flush; Flush or high pair							
	13	0.2766	2.62 : 1	0.2826	2.54 : 1	0.4810	1.08 : 1
Open-ended straight or	14	0.2979	2.36 : 1	0.3043	2.29 : 1	0.5116	0.955 : 1
pair							
Open-ended straight or flush; Flush or pair;	15	0.3191	2.13 : 1	0.3261	2.07 : 1	0.5412	0.848 : 1
Inside straight, flush or top pair							
	16	0.3404	1.94 : 1	0.3478	1.88 : 1	0.5698	0.755 : 1
	17	0.3617	1.76 : 1	0.3696	1.71 : 1	0.5976	0.673 : 1
Inside straight or flush or pair;							
Open- ended	18	0.3830	1.61 : 1	0.3913	1.56 : 1	0.6244	0.601 : 1
straight, flush or high pair							

	19	0.4043	1.47 : 1	0.4130	1.42 : 1	0.6503	0.538 : 1
	20	0.4255	1.35 : 1	0.4348	1.30 : 1	0.6753	0.481 : 1
Open-ended straight, flush or pair	21	0.4468	1.24 : 1	0.4565	1.19 : 1	0.6994	0.430 : 1

- **Note:** When drawing to a full house or four of a kind with a pocket pair that has hit trips (three of a kind) on the flop, there are 6 outs to get a full house by pairing the board and one out to make four of a kind. This means that if the turn does not pair the board or make four of a kind, there will be 3 additional outs on the river, for a total of 10, to pair the turn card and make a full house. This makes the probability of drawing to a full house or four of a kind on the turn or river 0.334 and the odds are 1.99 : 1. This makes drawing to a full house or four of a kind by the river about 8½ outs.

It is worth noting in the preceding table that if a player doesn't fold before the river, a hand with at least 14 outs after the flop has a better than 50% chance to catch one of its outs by the river. With 20 or more outs, a hand is a better than 2 : 1 favorite to catch at least one out by the river.

See the article on pot odds for examples of how these probabilities might be used in gameplay decisions.

### Example of drawing outs

The *unseen cards principle* states that to calculate the probability (from the point of view of a player about to act) that the next card dealt will be among a certain set, he must divide the number of cards in that set by the number of cards he has not seen, regardless of where those cards are. For example, a player playing five-card draw who holds 5-6-7-8-*K* wants to discard the *K* hoping to draw a 4 or 9 to complete a straight. He will calculate his probability of success on the turn as  $8 \div 47$ : 4 4s and 4 9s give 8 outs, and 52 cards minus the 5 he has already seen make 47. The fact that some of those unseen cards have already been dealt to other players is irrelevant, because he has no information about where the desired cards are, and must act based only upon information he does have. In a game among experts, it sometimes is possible to deduce what an opponent is probably holding, and adjust your odds computation. In a stud poker or community card poker game, cards that the player has seen because they are dealt face up are subtracted from the unseen card count (and from the set of desired cards as well if they are out of play).

### Runner-runner outs

Some outs for a hand require drawing an out on both the turn and the river—making two consecutive outs is called a runner-runner. Examples would be needing two cards to make a

straight, flush, or three or four of a kind. Runner-runner outs can either draw from a common set of outs or from disjoint sets of outs. Two disjoint outs can either be conditional or independent events.

### Common outs

Drawing to a flush is an example of drawing from a common set of outs. Both the turn and river need to be the same suit, so both outs are coming from a common set of outs—the set of remaining cards of the desired suit.

Other examples of runner-runner draws from a common set of outs are drawing to three or four of a kind. When counting outs, it is convenient to convert runner-runner outs to "normal" outs (see "After the flop".) A runner-runner flush draw is about the equivalent of one "normal" out.

The following table shows the probability and odds of making a runner-runner from a common set of outs and the equivalent normal outs.

Likely drawing to	Common outs	Probability	Odds	Equivalent outs
Four of a kind (with pair)	2	0.00093	1080 : 1	0.02
Inside-only straight flush				
Three of a kind (with no pair)	3	0.00278	359 : 1	0.07
	4	0.00556	179 : 1	0.13
	5	0.00925	107 : 1	0.22
Two pair or three of a kind (with no pair)	6	0.01388	71.1 : 1	0.33
	7	0.01943	50.5 : 1	0.46
	8	0.02590	37.6 : 1	0.61
	9	0.03330	29.0 : 1	0.78
Flush	10	0.04163	23.0 : 1	0.98

### Disjoint outs

Two outs are disjoint when there are no common cards between the set of cards needed for the first out and the set of cards needed for the second out. The outs are independent of each other if it does not matter which card comes first, and one card appearing does not affect the probability of the other card appearing except by changing the number of remaining cards; an example is drawing two cards to an inside straight. The outs are conditional on each other if the number of outs available for the second card depends on the first card; an example is drawing two cards to an outside straight.

For example, a player holding Jf Qf after the flop 9e 5c 6` needs a 10 and either a K or 8 on the turn and river to make a straight. There are 4 10s and 8 kings and 8 8s, so the probability is .

The probability of making a conditional runner-runner depends on the condition. For example, a player holding 9e 10e after the flop 8f 2` Ac can make a straight with {J, Q}, {7, J} or {6, 7}. The number of outs for the second card is conditional on the first card—a Q or 6 (8 cards) on the first card leaves only 4 outs (J or 7, respectively) for the second card, while a J or 7 (8 cards) for the first card leaves 8 outs ({Q, 7} or {J, 6}, respectively) for the second card.

The following table shows the probability and odds of making a runner-runner from a disjoint set of outs for common situations and the equivalent normal outs.

Drawing to	Probability	Odds	Equivalent outs
Outside straight	0.04440	21.5 : 1	1.04
Inside+outside straight	0.02960	32.8 : 1	0.70
Inside-only straight	0.01480	66.6 : 1	0.35
Outside straight flush	0.00278	359 : 1	0.07
Inside+outside straight flush	0.00185	540 : 1	0.04

The preceding table assumes the following definitions.

Outside straight and straight flush

Drawing to a sequence of three cards of consecutive rank from 3-4-5 to 10-J-Q where two cards can be added to either end of the sequence to make a straight or straight flush.

Inside+outside straight and straight flush

Drawing to a straight or straight flush where one required rank can be combined with one of two other ranks to make the hand. This includes sequences like 5-7-8 which requires a 6 plus either a 4 or 9 as well as the sequences J-Q-K, which requires a 10 plus either a 9 or A, and 2-3-4 which requires a 5 plus either an A or 6.

Inside-only straight and straight flush

Drawing to a straight or straight flush where there are only two ranks that make the hand. This includes hands such as 5-7-9 which requires a 6 and an 8 as well as A-2-3 which requires a 4 and a 5.

## Compound outs

The strongest runner-runner probabilities lie with hands that are drawing to multiple hands with different runner-runner combinations. These include hands that can make a straight, flush or straight flush, as well as four of a kind or a full house. Calculating these probabilities requires adding the compound probabilities for the various outs, taking care to account for any shared hands. For example, if  $P_s$  is the probability of a runner-runner straight,  $P_f$  is the probability of a runner-runner flush, and  $P_{sf}$  is the probability of a runner-runner straight flush, then the compound probability  $P$  of getting one of these hands is

$$P = P_s + P_f P_{sf}.$$

The probability of the straight flush is subtracted from the total because it is already included in both the probability of a straight and the probability of a flush, so it has been added twice and must therefore be subtracted from the compound outs of a straight or flush.

The following table gives the compound probability and odds of making a runner-runner for common situations and the equivalent normal outs.

Drawing to	Probability	Odds	Equivalent outs
Flush, outside straight or straight flush	0.08326	11.0 : 1	1.98
Flush, inside+outside straight or straight flush	0.06938	13.4 : 1	1.65
Flush, inside-only straight or straight flush	0.05550	17.0 : 1	1.30

Some hands have even more runner-runner chances to improve. For example, holding the hand  $J^c Q^c$  after a flop of  $10^c J^c 7^c$  there are several runner-runner hands to make at least a straight. The hand can get two cards from the common outs of  $\{J, Q\}$  (5 cards) to make a full house or four of a kind, can get a  $J$  (2 cards) plus either a 7 or 10 (6 cards) to make a full house from these independent disjoint outs, and is drawing to the compound outs of a flush, outside straight or straight flush. The hand can also make  $\{7, 7\}$  or  $\{10, 10\}$  (each drawing from 3 common outs) to make a full house, although this will make four of a kind for anyone holding the remaining 7 or 10 or a bigger full house for anyone holding an overpair.

## Notes

1. ^ The odds presented in this article use the notation  $x : 1$  which translates to  $x$  to 1 odds against the event happening. The odds are calculated from the probability  $p$  of the event happening using the formula:  $\text{odds} = [(1/p) - 1] : 1$ , or  $\text{odds} = [(1 - p)/p] : 1$ . Another way of expressing the odds  $x : 1$  is to state that there is a 1 in  $x+1$  chance of the event occurring or the probability of the event occurring is  $1/(x+1)$ . So for example, the odds of a role of a fair six-sided die coming up three is 5 : 1 against because there are 5 chances for a number other than three and 1 chance for a three; alternatively, this could be described as a 1 in 6 chance or  $1/6$  probability of a three being rolled because the three is 1 of 6 equally-likely possible outcomes.

2. ^ a b By removing reflection and applying aggressive search tree pruning, it is possible to reduce the number of unique head-to-head hand combinations from 207,205 to less than 50,000. Reflection eliminates redundant calculations by observing that given hands  $h^1$  and  $h^2$ , if  $w^1$  is the probability of  $h^1$  beating  $h^2$  in a showdown and  $s$  is the probability of  $h^1$  splitting the pot with  $h^2$ , then the probability  $w^2$  of  $h^2$  beating  $h^1$  is  $w^2 = 1 - (s + w^1)$ , thus eliminating the need to evaluate  $h^2$  against  $h^1$ . Pruning is possible, for example, by observing that  $Q^c J^c$  has the same chance of winning against both  $8^c 7^c$  and  $8^c 7^c$  (but not the same probability as against  $8^c 7^c$  because sharing the heart affects the flush possibilities for each hand.)

3. ^ In the example, if the opponent is holding either  $8^c 9^c$  or  $8^c 9^c$ , then the opponent wins with a flush if the player makes a straight using two hearts or



two diamonds, respectively. If the opponent is holding 8f 9f, then the opponent wins with a straight flush if the player makes a full house with 10f Jf.

## See also

### Poker topics:

- Texas hold 'em
- Poker probability
- Texas hold 'em hands
- Poker strategy
- Pot odds
- Poker

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**Categories:** Poker gameplay and terminology | Texas hold 'em

## Texas hold 'em hands

In the poker game *Texas hold 'em*, a player's *hand* consists of two **hole** cards, which belong solely to the player and remain hidden from the other players. Five community cards are also dealt into play. Betting begins before any of the community cards are exposed, and continues throughout the hand.

The player's "playing hand", which will be compared against that of each competing player, is the best 5-card poker hand available from his two hole cards and the five community cards.

Unless otherwise specified, here the term hand applies to the player's two hole cards, or starting hand.

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## Essentials

There are  $(52 \times 51)/2 = 1,326$  distinct possible combinations of two hole cards from a standard 52-card deck in hold 'em, but since suits have no relative value in poker, many of these hands are identical in value before the flop. For example,  $AcJc$  and  $AeJe$  are identical, because each is a hand consisting of an ace and a jack of the same suit. There are 169 nonequivalent starting hands in hold 'em (13 pocket pairs,  $13 \times 12 / 2 = 78$  suited hands and 78 unsuited hands;  $13 + 78 + 78 = 13 \times 13 = 169$ ). These 169 hands are not equally likely. Hold 'em hands are sometimes classified as having one of three "shapes":

- Pairs, (or "pocket pairs"), which consist of two cards of the same rank (e.g.  $9^9c$ ). One hand in 17 will be a pair, each occurring with individual probability  $1/221$  ( $P(\text{pair}) = 3/51 = 1/17$ ).
- Suited hands, which contain two cards of the same suit (e.g.  $A^6^$ ). Four hands out of 17 will be suited, and each suited configuration occurs with probability  $2/663$  ( $P(\text{suited}) = 12/51 = 4/17$ ).
- Offsuit hands, which contain two cards of different suit and rank (e.g.  $K^Je$ ). Twelve out of 17 hands will be nonpair, offsuit hands, each of which occurs with probability  $2/221$  ( $P(\text{offsuit non-pair}) = 3 \times (13-1)/51 = 12/17$ ).

It is typical to abbreviate suited hands in hold 'em by affixing an "s" to the hand, as well as to abbreviate non-suited hands with an "o" (for offsuit). That is, QQ represents any pair of queens, AK (or, sometimes, AKo) represents any ace and king of different suits, and JTs represents any jack and ten of the same suit.

## Texas hold 'em hand groups

David Sklansky and Mason Malmuth [1] assigned each hand to a group, and proposed all hands in the group could normally be played similarly. Stronger starting hands are identified by a lower number. Hands without a number are the weakest starting hands.

	A	K	Q	J	T	9	8	7	6	5	4	3	2
A1	2	2	3	3	7	7	8	8	8	8	8	8	
K2	1	2	3	7	7	7							
Q3	4	1	3	8									
J3	4	4	1	3									
T4	7	8	7	2	6								
98	7				3	6							
88						4	6						
7							4	6					
6								5	8				
5									5				
4										5			
3											5		
2												5	

- Note: Unsited on the bottom left, suited on the top right.

## Chen Point Count

There is a way to compute the Sklansky Malmuth table for those people who have trouble memorizing. The results are almost identical to those generated using the Chen Point Count.[2] To compute the point count the following formula should apply:

1. Take the high card and score it. A=10,K=8,Q=7,J=6,T-2 = 1/2 value shown.
2. If the 2nd card pairs the first the value is either twice the high card point or 5 which ever is greater.
3. If they are not paired then calculate the gap for the lower card and subtract off a gap penalty:.
  1. For a 0 gapper subtract 0,
  2. For a 1 gapper subtract 1
  3. For a 2 gapper subtract 2
  4. For a 3 gapper subtract 4
  5. For a 4 gapper or more subtract 5 (includes A2,A3,A4).
4. If the cards are of the same suit apply a flush bonus of +2 pts.
5. If the cards are a 0 or 1 gap and the top card is a J or lower apply a +1 straight bonus
6. Round 1/2 point up

Then 12 - *Chen Point Count* in general is the SM hand grouping. Examples:

- 8c 8: 4 pts for the first 8, double for the pair is 8 Chen points. This puts it in S&M group 4.
- 9c 7c: 4.5 points for the 9, -1 for the 1 gapper, +2 for the same suit and +1 for the straight bonus. Round up to 7 Chen points which is in S&M group 5.

The following hands are the exceptions (off by 1): 55, AQs, A9, AX, 96s, 32s, 98, 97, 76.

## See also

- List of slang names for poker hands

## Notes

1. ^ David Sklansky and Mason Malmuth (1999). Hold 'em Poker for Advanced Players. Two Plus Two Publications. ISBN 1880685221
  2. ^ Lou Krieger, Hold'em Excellence, ch Power Rating ISBN 1886070148
- Categories:** Poker hands | Texas hold 'em

# Texas Hold'em Bonus Poker

*Texas Hold'em Bonus Poker* is a gambling card game is owned and licensed by Mikohn Gaming/Progressive Gaming International Corporation. The game is based on traditional multi-player Texas Hold'em poker.

## Rules

- The game is played with a standard 52 card deck.
- Each player makes an ante bet of 1 unit and may make an optional bonus bet.
- The player and dealer are both delt 2 cards (face down).
- After checking his/her cards, the player may decide to fold with no further play losing the ante bet or make a flop bet of 2 units.
- 3 cards are then dealt to the board.
- The player may decide to check or make a turn bet of 1 unit.
- Another card is dealt to the board (making 4 cards in total on the board).
- The player may decide to check to make a river bet of 1 unit.
- One more card is dealt to the board(making 5 in total).
- The player and dealer make their best 5 card poker hand from their own hand and 5 board cards.
- If the dealer's hand is better than the player's hand the player loses all bets.
- If the dealer's hand is equal to the player's hand, all bets are a push.
- If the player's hand is better than the dealer's hand, the player wins even money on the flop, turn and river bets. The player also wins even money on the ante bet if his best hand is a straight or better, otherwise the ante bet pushes.

- If a players hole cards are a pair, A-K, A-Q, or A-J, the player wins the bonus bet according to the payable. This bet pays even if the player does not beat the dealers hand.

## Player Strategy

The optimal strategy for the flop bet is to call all hands except for 2-3 offsuit, 2-4 offsuit, 2-5 offsuit, 2-6 offsuit and 2-7 offsuit.

Because of the large number and variety of combinations, it is impossible to list a basic strategy for the turn and river bets.

**Categories:** Poker variants

## WinHoldEm

*WinHoldEm* is an online Texas hold 'em bot, created by Ray Bornert. Bots of this kind can sometimes be used in online poker play, but this is considered cheating by poker rooms, and grounds for account termination. The bot is loaded, and will play in lieu of a real human, calculating pot odds and making betting decisions based on these calculations. There is no way to accurately estimate the extent to which these bots are used.

The bot works through installing client software on your machine which interfaces with the poker room, i.e. it is able to read what cards have been dealt, what bets have been made, etc. The bot's 'intelligence' ends there. Whether the bot wins, or not, depends on the poker ability of the actual person. The poker strategy needs to be programmed by the user, so the bot is only as good as its master.

## See also

- Computer poker players
- Cheating in poker
- 

**Categories:** Texas hold 'em

## Blind man's bluff

*Blind man's bluff* is a version of poker which is unconventional in that each person sees the cards of all players except his own.

The standard version (also called *Indian poker*) is simply high card. Each player is dealt one card which he places on his forehead facing outwards, and a round of betting occurs, as players attempt to guess if they have the highest card based on what they see around them.

Other versions (*forehead stud*) are variations on stud poker, in which one or more of the hole cards is hidden from its owner, but shown to all other players, as above.

During its coverage of the 2004 World Series of Poker, ESPN showed a Blind Man's Bluff version of Texas hold'em.

*Indian Poker* is also an adapted drinking game, where the loser has to "chug" a beer for X seconds, where X equals the difference between the high card and the loser. If both players tie, they both drink for the amount of seconds on the card.

**Categories:** Poker variants

## Chicago

The poker game called *Chicago* is one of the most popular card games in Sweden today. Relying on the keeping of score instead of the placing of bets, it is suitable even for environments such as schools, where gambling is often prohibited. The game exists in countless versions, so here a (somewhat arbitrarily chosen) basic game will be followed by a number of possible variations.

### Contents

- 1 Hand scores
- 2 Basic rules
  - 2.1 Exchanges and hand scoring
  - 2.2 The game
  - 2.3 Chicago
- 3 Variations

### Hand scores

The backbone of the game is that each poker hand has its own point value, as given in this table:

- One pair - 1 point.
- Two pair - 2 points.
- Three of a kind - **3 points**.
- Straight - 4 points.

- Flush - 5 points.
- Full House - 6 points.
- Four of a kind - 7 points (but see Variations below).
- Straight flush - 8 points (but see Variations below).

## **Basic rules**

Chicago is played with a standard 52-card deck. Each player is dealt five cards. The objective is to reach 52 points.

### **Exchanges and hand scoring**

The players are allowed to exchange any number of their cards. If a player chooses to exchange one card only, he may choose "one up", meaning that he is dealt one card faced up, which he can either accept, or instead take the next card unseen. After the exchanges, the player with the best hand (and only one player) gets points for his hand. Then follows another round of exchanges, but no hand scoring.

### **The game**

Now, the first player begins by playing one card. Ordinary whist rules apply, but the players keep their cards collected by themselves. The player who wins the last trick gets 5 points. Also, the player with the best hand (whether it is the same player or not) gets points for his hand.

### **Chicago**

After the second exchange, any player can choose to play Chicago. In this case, he pledges himself to win all the tricks of the game. If he does, he is awarded 15 points, but if he fails, the penalty is just as harsh: -15 points.

## **Variations**

- Sometimes, a player given five cards below ten (either inclusive or exclusive) is allowed to replace them before the exchanges begin.
- Some play with 3 exchanges instead of 2. Then of course, scoring for hands will be made after both the first and the second exchange.

- Some do not use the "one up" rule.
- Often, one wants to give higher rewards than 7 or 8 points for Four of a kind and Straight flush respectively. There are several ways to achieve this, most notably by elevating the player immediately to 52 points, or lowering either all players or one player of the holder's choice to 0 points, or a combination of these. Holding a Royal flush usually means immediate victory.
- The confusion is great as to what scores are appointed in the case of Chicago. Some will argue that no player will get any points at all besides the +15 or -15, whilst others will allow almost any points. The +5 for the game, however, can never be stacked with the +15 for Chicago.
- Some prescribe that any player with 45 points or more is not allowed to replace any cards.
- Some require that after (and not in the same hand as) a player reaches 52 points, he must win the game once more before he actually wins. This handles the possibility that more than one player reach 52 points in the same hand.

**Categories:** Poker variants

## Community card poker

### Contents

- 1 Texas hold 'em
  - 1.1 Double-board hold 'em
- 2 Omaha hold 'em
- 3 Pineapple - Crazy Pineapple - Tahoe hold 'em
- 4 Manila
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- **5 "Home" games**
  - 5.1 Cincinnati
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- 6 See also

About the time of World War II, many modern poker games used community cards (also called "shared cards" or "window cards"), which are cards dealt face up to the center of the table and shared by all players. In these games, each player is dealt privately an incomplete



hand ("hole cards"), which is then combined with the community cards to make a complete hand. The set of community cards is called the "board", and may be dealt in a simple line or arranged in a special pattern. Rules of each game determine how they may be combined with each player's private hand. The most popular community card game today is Texas hold 'em, originating sometime in the 1920s.

In home games, it is typical to use antes, while casinos typically use only blinds for these games. Fixed limit games are most common in casinos, while spread limit games are more common in home games. No limit and pot limit games are less common. Later betting rounds often have a higher limit than earlier betting rounds. Each betting round begins with the player to the dealer's left (when blinds are used, the first round begins with the player after the big blind), so community card games are generally positional games.

Most community card games do not play well with lowball hand values, though some do play very well at high-low split, especially with ace-to-five low values, making it possible to win both halves of a pot. When played high-low split, there is generally a minimum qualifying hand for low (often 8-high), and it is played cards speak.

## **Texas hold 'em**

*For more details on this topic, see Texas hold 'em.*

This is the most popular community card game today. Each player is dealt two private cards, after which there is a betting round. Then three community cards are dealt face up (in no particular order or pattern), followed by a second betting round. A fourth community card is followed by a third betting round, a fifth community card and the fourth and final betting round. At showdown, each player plays the best five-card hand he can make using any five cards among the two in his hand and the five on the board.

## **Double-board hold 'em**

For double-board hold 'em, two separate five-card boards are dealt, and the high hand using each board takes half of the pot. For example, after the first betting round, three community cards are dealt to each of two separate boards; after the second round, another community card is dealt to each board; and before the final round, a fifth community card is dealt to each board (so there will be in total ten community cards, comprising two separate five-card hold'em boards).

This variant of Texas hold 'em is sometimes called "double-flop hold'em", which is a bit of a misnomer, since there are not just two flops, but also two turns and two rivers.

## **Omaha hold 'em**

*For more details on this topic, see Omaha hold 'em.*

Another hold 'em variant is Omaha hold'em. Each player is dealt four cards to his private hand instead of two. The betting rounds and layout of community cards is identical to Texas hold 'em. At showdown, each player's hand is the best five-card hand he can make from exactly three of the five cards on the board, plus exactly two of his own cards.

The most popular form of the game is high-low split, called many different names such as "Omaha Eight or better", "Omaha HiLo" or "Omaha8". Each player, using the above rules, makes a separate five-card high hand and five-card low hand, and the pot is split between the high and low (which may be the same player). To qualify for low, a player must be able to play an 8-7-6-5-4 or lower. A few casinos play with a 9-low qualifier instead, but this is rare.

When high hands only are used, the game is generally called "Omaha high" to avoid ambiguity.

Omaha can be played fixed limit, pot limit (where it is often called "PLO") or no limit. It is sometimes played where each player gets five cards instead of four. The same rules apply for showdown: each player must use two of his cards with three of the community cards.

In the game of "Courcheval", popular in Europe, instead of betting on the initial four cards and then flopping three community cards for the second round, the first community card is dealt before the first betting round, so that each player has four private cards and the single community card on his first bet. Then two more community cards are dealt, and play proceeds exactly as in Omaha.

## **Pineapple - Crazy Pineapple - Tahoe hold 'em**

Pineapple hold 'em exists halfway between Texas hold 'em and Omaha hold 'em. Players are initially dealt three cards. Each player then discards one of the three cards, and the game proceeds exactly as in Texas hold 'em. In Crazy Pineapple, the players discard their third card after the flop betting round, before the fourth community card is dealt. In Tahoe, players keep all three cards through showdown, but may not use all three of them to make a hand. Each player may use none, one, or two cards from his hand, combined with those on the board, to make his final five-card hand.

Crazy Pineapple and Tahoe are usually played high-low split.

## **Manila**

One of the most popular games in Australian casinos is a Texas hold 'em variant called "Manila" (also called "Seven-up" in some places). It is played with a Stripped deck in which all cards below the rank of 7 are removed (leaving 32 cards). Each player is dealt two private cards, and a single community card is dealt face up, followed by the first betting round. Then a second community card is followed by a second round, a third community card and a third

round, and fourth community card and a fourth round, and finally a fifth community card, fifth betting round, and showdown. On showdown, unlike Texas hold 'em (and more like Omaha), each player makes the best hand he can from both of his hole cards with exactly three of the five community cards.

Because of the stripped deck, a flush beats a full house. Also, an ace may not be played low for a straight (that is, the hand *A-7-8-9-10* is not a straight in Manila). Manila and its variants are rarely played high-low split (in fact, very few stripped deck games are ever played low).

Common variations involve dealing three cards to each player, one of which can either be discarded at some point (like Pineapple, above), or else held to the end, but maintaining the requirement that each player play exactly two of his own cards with exactly three of the board. The three-card variant is sometimes played with 6s being restored to the deck, making it 36 cards.

## **Pinatubo**

Because Manila has five betting rounds, it does not play well at no limit or pot limit. This can be easily modified by eliminating the betting round between the second and third community cards. So, each player is dealt two private cards and a single community card is dealt to the board, followed by the first betting round. Then two community cards are dealt, followed by a second betting round. Then a fourth community card and third betting round, a fifth and final community card and fourth betting round, followed by a showdown as above.

The three-card variant can be played this way as well (as with Manila, the player must use exactly two of his three hole cards with three of the board cards to make a hand).

## **"Home" games**

Although some of these games (notably Chowaha and Tic tac toe) have been played in formal casino settings, they are generally better suited to less serious low-stakes home games. They also lend themselves to ad-hoc variation, since the games themselves have not been time-tested for balanced play as have many casino games, so making variations is likely to make the game much worse.

## **Cincinnati**

Each player is dealt five hole cards, and then one community card is dealt face up to the table. After a first betting round, a second community card is dealt, followed by a second betting round. This continues until a fifth community card is dealt, followed by a fifth betting round and showdown. Each player plays the best five-card hand he can make from his five hole cards plus the five community cards in any combination. Some variants restrict each player to using exactly two of his hole cards (as in Omaha) or no more than two (as in Pineapple).

## Iron cross

Each player is dealt five hole cards, and then five community cards are dealt one at a time followed by a betting round, exactly as in Cincinnati. But they are dealt in a cross pattern with a center card (dealt last) and four other cards to its left, right, top, and bottom. Each player plays the best five-card poker hand he can make from his five hole cards plus the three cards from either the vertical arm or the horizontal arm of the cross. A common variant is to make the center card wild, or the center card and all of the same rank wild.

One can also make a better game by reducing to four betting rounds: one after the hole cards are dealt but before any community cards are, then another after the left and right cards of the cross are dealt at the same time, a third after the top and bottom cards of the cross are dealt, and a final round after the center card is dealt.

## Chowaha

Each player is dealt two hole cards and there is a round of betting as in Texas hold'em. After betting is complete the dealer deals three sets of three community cards (F1, F2 and F3 in the diagram below). There is another round of betting and the dealer deals two turn cards (T1 and T2 in the diagram) followed by another round of betting. A single card is dealt (R1 in the diagram) and there is a final round of betting. Each player makes their best hand using both their hole cards plus three from one of the valid boards. There are four valid boards F1-F1-F1-T1-R1, F2-F2-F2-T1-R1, F2-F2-F2-T2-R1 and F3-F3-F3-T2-R1.

F1-F1-F1 \ T1 F2-F2-F2 < > R1 T2 F3-F3-F3 /

Chowaha is often played as a high-low split game in which case you can use one board for the high hand and another for the low hand.

Chowaha is occasionally played at low limits in casinos (usually in conjunction with B.A.R.G.E) and under must-drink, must-toke conditions.

## Tic tac toe

In this game, each player will end up with two private cards, and there will be a board of nine cards arranged in a 3x3 square. Each player will make a five-card hand from a combination of his two cards plus any consecutive row of three on the board, either a horizontally, vertically, or diagonally (as in Tic-tac-toe). Variations exist in the number of betting rounds based on which community cards are revealed in what order. The simplest is probably to deal each player both hole cards then deal the three cards across the top of the 3x3 array before the first betting round; then deal the three cards across the bottom of the

array followed by a second betting round; then deal the two cards on the left and right edge of the middle row, followed by a third round; and finally deal the center community card followed by a fourth betting round and showdown.

Another variation is to deal three or four hole cards to each player, though each player may still only play exactly two of them with any consecutive row of three from the grid.

A poker-like beginner's home game is also called "Tic tac toe"; it involves dealing each player two hole cards and then dealing the 3x3 grid face up, followed by a single betting round after which players announce the best hand they can make from their two cards plus any consecutive row, column, or diagonal of the board as above. Hole cards can be redealt several times to the same board of community cards. This is primarily for practice at recognizing and evaluating poker hands.

### **Lame-brain Pete**

Three hole cards are dealt to each player, followed by a first betting round. Then a single community card is dealt, followed by a second betting round. Play continues with a single community card being added to the board followed by a betting round, until there are four community cards, for a total of five betting rounds. Upon showdown, the lowest-ranking card on the board, and all cards of that same rank either on the board or in players' hole cards, play as wild cards (thus, it is not possible to know exactly which cards will be wild until the end, unless a deuce appears on the board earlier than that). Each player makes his best five-card poker hand from his three hole cards plus the four community cards in any combination, with the low board card wild.

### **Six-pack**

At showdown, each player will have two hole cards, and there will be six community cards on the board arranged in a circle (something like the even-hour marks on a clock). The rounds go like this: each player is dealt two hole cards, followed by the first betting round. Then two of the board cards at opposite sides of the circle (call them 12 o'clock and 6 o'clock) are dealt, followed by a second betting round. Two more opposite community cards are dealt (2 o'clock and 8 o'clock), followed by a third betting round. Finally, the 4 o'clock and 10 o'clock cards are dealt followed by a fourth and final betting round, and showdown.

At showdown, each player makes a hand by combining his two cards with any three consecutive cards of the board. That is, he can use 12, 2, and 4; or 2, 4, and 6; or 6, 8, and 10; etc. So cards dealt to opposite sides of the circle will never appear in the same final hand. With exactly two hole cards, there are only six possible choices for which hand to play. The game can be modified a bit by dealing three hole cards, where each player is required to use exactly two of them plus three consecutive board cards.

### **Spit in the ocean**

While cards are dealt as in stud poker, at any time during the deal one player can call "spit", whereupon the next card is turned face up as a community card. (This variant is mentioned in the Ray Stevens song Shriner's Convention.)

## See also

- List of poker variants

**Categories:** Poker variants

# Omaha hold 'em

*Omaha hold 'em* (or *Omaha holdem* or simply *Omaha*) is a community card poker game ("flop game") similar to Texas hold 'em, where each player is dealt four cards and must make his best hand using exactly two of them, plus exactly three of the five community cards.

## Contents

- 1 Explanation
- 2 Omaha Hi/Lo
- 3 Pot Limit Omaha
  - 3.1 Redraws
- 4 Variations

## Explanation

In North American casinos, the unadorned term "Omaha" can refer to several games. Typically, it refers to the high-low split variant played with fixed limits: also called "Omaha eight-or-better", "Omaha Hi-Lo", "Omaha/8" and several other similar names. The original game is more commonly known as "Omaha High Only".

In Europe, "Omaha" still typically refers to the high version of the game, usually played pot limit. Pot Limit Omaha is often abbreviated as "PLO". Pot-limit and no-limit Omaha eight-or-better can be found in some casinos and online, though no-limit is more rare.

It is often said that Omaha is a game of the 'nuts', i.e. the best possible high or low hand, because it frequently takes "the nuts" to win a showdown. It is also a game where between the cards in his hand and the community cards a player may have drawing possibilities to multiple different types of holdings. For example, a player may have both a draw to a flush and a full house using different combinations of cards. At times, the players themselves have trouble figuring out what draws and possibilities that their cards hold.

The basic differences between Omaha and Texas hold 'em are these: first, each player is dealt four cards to his private hand instead of two. The betting rounds and layout of

community cards are identical. At showdown, each player's hand is the best five-card hand he can make from exactly three of the five cards on the board, plus exactly two of his own cards. Unlike Texas hold 'em, a player cannot play only one of his cards with four of the board, nor can he play the board, nor play three from his hand and two from the board, or any other combination. *Each player must play exactly two of his own cards with exactly three of the community cards.*

Some specific things to notice about Omaha hands are:

- As in Texas hold 'em, three or more suited cards on the board makes a flush possible, but unlike that game a player always needs two of that suit in his hand to play a flush. For example, with a board of  $K^9 Q^9 Qe^5$ , a player with  $A^2e 4e 5c$  cannot play a flush using his ace as he could in Texas hold 'em; he must play two cards from his hand and only three from the board. A player with  $2^3 Kf Qf$  can play the spade flush.
- Two pair on the board does not make a full house for anyone with a single matching card as it does in Texas hold 'em. For example, with a board of  $J^9 Jf 9f 5e 9c$ , a hand of  $A^2 J^e Kf$  cannot play a full house; he can only use his  $A-J$  to play  $J^9 J^e Jf A^9c$ , since must play only three of the board cards. A player with  $2c 5c 9^10$  can use his 9-5 to play the full house  $9^9 9c 9f 5e 5c$ .
- Likewise, with three of a kind on the board, a player must have a pair in his hand to make a full house. For example, with a board of  $J^9 Jf Af J^e Kc$ , a player with  $A^2 3^e Kf$  does not have a full house, he only has three Jacks with an Ace-King kicker, and will lose to a player with only a pair of deuces. This is probably the most frequently misread hand in Omaha. (Naturally, a person with the fourth jack in his hand can make four Jacks because any other card in his hand can act as the fifth card, or "kicker").

## Omaha Hi/Lo

In high-low split, each player, using these rules, thus makes a separate five-card high hand and five-card ace-to-five low hand (eight-high or lower to qualify), and the pot is split between the high and low (which may be the same player). To qualify for low, a player must be able to play an 8-7-6-5-4 or lower (this is why it is called "eight-or-better", or simply "Omaha/8"). A few casinos play with a 9-low qualifier instead, but this is rare. Each player can play any two of his four hole cards to make his high hand, and any two of his four hole cards to make his low hand.

The brief explanation above belies the complexity of the game, so a number of examples will be useful here to clarify it. The table below shows a five-card board of community cards at the end of play, and then lists for each player the initial private four-card hand dealt to him or her, and the best five-card high hand and low hand each player can play on showdown:

Board: $2^5c$ <b><math>10e</math></b> <b><math>7f</math></b> $8c$				
Player	Hand	High	Low	
Alan	$A^4$ <b><math>5e</math></b> $Kc$	<b><math>5e</math></b> $5c$ $A^10e$ $8c$	<b><math>7f</math></b> $5c$ $4^2$ $A^9$	

Brenda	<b>Ae 3e</b> 10` 10c	10` 10c <b>10e</b> 8c <b>7f</b>	<b>7f</b> 5c <b>3e</b> 2` <b>Ae</b>
Chuck	7c 9c J` Q`	J` <b>10e</b> 9c 8c <b>7f</b>	<i>Cannot qualify</i>
Daniel	4e 6e <b>K`</b> Kf	8c <b>7f</b> 6e 5c <b>4e</b>	7f 6e <b>5c</b> 4e <b>2`</b>
Emily	Af 3f 6f 9e	9e <b>8c</b> 7f 6f <b>5c</b>	<b>7f</b> 5c <b>3f</b> 2` <b>Af</b>

In the deal above, Chuck wins the high-hand half of the pot with his *J*-high straight, and Brenda and Emily split the low half (getting a quarter of the pot each) with 7-5-3-2-A.

Some specific things to notice about Omaha eight-or-better hands are:

- In order for anyone to qualify low, there must be at least three cards of differing ranks 8 or below on the board. For example, a board of *K-8-J-7-5* makes low possible (the best low hand would be *A-2*, followed by *A-3*, *2-3*, etc.) A board of *K-8-J-8-5*, however, cannot make any qualifying low (the best low hand possible would be *J-8-5-2-A*, which doesn't qualify). Statistically, around 60% of the time a low hand is possible.
- Low hands often tie, and high straights occasionally tie as well. It is possible to win as little as a 14th of a pot (though this is extraordinarily rare). Winning a quarter of the pot is quite common, and is called "getting quartered". One dangerous aspect of playing for the low pot is the concept of 'counterfeiting'. To illustrate, if a player has, for example, *2-3* and two other cards in his hand and the flop is *A-6-7*, that player has flopped the 'nut low'. However, if either a 2 or a 3 hit the board on the turn or the river, the hand is 'counterfeited' and the nut low hand is lost (the player still has a much weaker low hand however). This is why there is significant extra value in possessing the 'protected' nut low. To illustrate this, if the player has *2-3-4* in his hand his low is protected, i.e. if a 2 or 3 hits the board he still has the lowest possible hand. To lose the nut low in this case both a 2 and a 3 would have to hit the board on the turn and the river, an unlikely possibility. For similar reasons it is significantly better to possess the protected nut low draw over the low draw. For example, this could be having *A-2-3* with a flop of *7-8-9-Q*; any low card below 7 on the turn or river gives the player the best low.
- When four or five low cards appear on the board, it can become very difficult to read the low hands properly. For example with a board of *2f 6e Ac 5c 8`*, the hand *2e 4` 5` Kf* is playing a *6-5-4-2-A* (either his *2-4* with the board's *A-5-6*, or his *4-5* with the board's *A-2-6*--either way makes the same hand). In this situation he is often said to be playing his "live" 4, that is, his 4, plus some other low card that matches the board but still makes a low because the one on the board isn't needed. A player with *3` 5` 10e Jf* is playing a "live" 3, for a low of *6-5-3-2-A*, which makes a better low. However, a player with *3c 7f Qf Q`* can only play *7-5-3-2-A* low; even though he has a "live" 3, he must play two low cards from his hand, and so he must play his *7-3*, and cannot make a 6-high low hand.
- Starting hands with three or four cards of one rank are very bad. In fact, the worst possible hand in the game is *2` 2c 2e 2f*! Since the only possible combination of two cards from this hand is *2-2*, it is impossible to make low; since no deuce remains to appear on the board, it will be impossible to make three



deuces or deuces full, and anyone with any matching card to the board will make a higher pair. Likewise, starting with four cards of one suit makes it less likely that you will be able to make a flush. Starting with four different suits yields no chance for a flush, and starting with four disconnected cards reduces straight possibilities. Computer analysis of the best starting hands has proven that the best starting hand for Omaha is *A,A,K,K* with both Ks suited to the As. For the Hi-Lo variation, the most valuable starting holding is *A-2* (suited), *A-3* (suited).

- Hands to avoid tend to contain mainly middle ranked cards, which are of little use for any low splits and which tend to generate lower pairs and sets, weaker flushes and lower straights and can be very expensive.

- Low hand ranks from best to worst: 5432A ('the wheel'), 6432A, 6532A, 6542A, etc., 87654; see also ace-to-five low

## Pot Limit Omaha

Pot Limit Omaha (also called PLO) is popular in Europe, online, and in high-stakes "mixed games" played in some American casinos. It is more often played high only, but can also be played high low. Even more so than Limit Omaha High Low, PLO is a game of drawing, if you are drawing, to the nut hand. For example, second best flushes and straights can be, and frequently are, beaten. Furthermore, because of the exponential growth of the pot size in pot limit play, seeing one of these hands to the end can be very expensive.

## Redraws

A great hand to have in PLO is the nuts with a redraw. For example, if the board is *Q`J`Te*, and you have *A`Kc Qc Qe*, then not only do you have the current nuts (your ace-king), but you also have a redraw with the two queens in your hand because if the board pairs, you will make queens full, or four queens. If your hand is *A`K`Qc Qe*, your hand is even better because you have flush and straight flush redraws as well. In fact, with the *Q`J`Te* board, *A`K`Qc Qe* is approximately an 80-20 money favorite over a random hand containing ace-king.

## Variations

Sometimes the high-low split game is played with a 9-high qualifier instead of 8-high. It can also be played with five cards dealt to each player instead of four. In that case, the same rules for making a hand apply: exactly two from the player's hand, and exactly three from the board.

In the game of *Courcheval*, popular in Europe, instead of betting on the initial four cards and then flopping three community cards for the second round, the first community card is dealt before the first betting round, so that each player has four private cards and the single community card on his first bet. Then two more community cards are dealt, and play proceeds exactly as in Omaha.

**Categories:** Poker variants

## Dealer's choice

*Dealer's choice* is a style of poker where each player may deal a different game. A button passes to the left after every deal, giving the new dealer a chance to call a different game than the one that was previously called.

It is also the name of a poker book by James Ernest, Phil Foglio, and Mike Selinker, detailing over 200 variants that can be called in such a game.

- Ernest, James; Selinker, Mike; Foglio, Phil (2005). *Dealer's Choice: The Complete Handbook of Saturday Night Poker*. Overlook Press. ISBN 1585676543.

**Categories:** Poker variants

## Four card poker

*Four card poker* is a relatively new casino card game similar to three card poker, invented by Roger Snow and owned by ShuffleMaster [1].

The player makes an ante bet and may also make an 'Aces Up' bet. Five playing cards are dealt to the player who has to make the best four-card hand possible. The dealer is dealt five cards face down, and one card face up, a total of six cards. He also has to make the best four-card hand. After seeing his cards and the dealer's face-up card, the player can opt to fold, in which case he receives nothing, or play, by betting between one and three times his ante.

The best four-card hands for player and dealer will be compared according to the following ranking (from best worst):

- Four of a kind
- Straight flush

- Three of a kind
- Flush
- Straight
- Two pair
- One pair
- High card

If the player has three-of-a-kind or better, he will receive a bonus based on the ante wager as follows: three-of-a-kind: 2 to 1, straight flush 20 - 1, four of a kind 25-1.

The Aces Up bet is resolved independently of the dealer's hand, purely on the rank of the player's payout. The specific payout depends on the payout in use, with payouts for a pair-of-aces (pays even money on the Aces Up wager) or better.

The dealer has an advantage in having an extra card from which to select the best four, and the fact that if the player folds, he will lose his ante, even if his hand was better than the dealers. The player gets return from the bonus bet payment and from the ability to raise by more than one unit one the hand is good.

Strategy for when to raise and fold is fairly complex, but with optimal play the ante + play bet has a house edge of about 3.36% of the initial bet [2].

## See also

- Poker
- Gambling

**Categories:** Poker variants | Poker

## H.O.R.S.E.

*H.O.R.S.E* is a form of poker commonly played at the high stakes tables of casinos. It consists of rounds of play alternating between hold 'em (H), Omaha eight or better (O), razz (R), seven card stud (S) and seven card stud eight or better (E).

A H.O.R.S.E tournament was last featured at the World Series of Poker in 2004, but will make a return in 2006 with a record-setting \$50,000 buy-in.

## See also

- H.O.S.E

**Categories:** Poker variants

## H.O.S.E

*H.O.S.E* (aka S.H.O.E) is a term used for playing a mixed game of poker consisting of four different poker games. H stands for Hold'em, O for Omaha Eight or Better, S for 7 Card Stud and E for 7 Card Stud Eight or Better. This form of poker is most common at higher limit casino tables and is popular since it requires players to be skilled at many different forms of poker to succeed.

H.O.R.S.E. is a similar variant that has Razz thrown into the mix. Razz is 7 Card Stud played for low.

Until recently tournaments in H.O.S.E (last time 2003) and H.O.R.S.E (last time 2004) was featured at the World Series of Poker but in 2005 no such tournament was hosted, disappointing many players. The H.O.R.S.E tournament will be reinstated at the 2006 World Series of Poker event with a record \$50,000 buy-in to participate.

**Categories:** Poker variants

## Kuhn poker

*Kuhn poker* is a simplified form of poker developed by Dr. Harold W. Kuhn, it is a zero sum two player game. The deck includes only three playing cards, for example a King, Queen, and Jack. One card is dealt to each player, then the first player must bet or pass then the second player may bet or pass. If any player chooses to bet the opposing player must bet as well ("call") in order to stay in the round. After both players pass or bet the player with the highest card wins the pot. Kuhn demonstrated that there are many game theoretic optimal strategies for the first player this game, but only one for the second player, and that played optimally the first player should expect to lose at a rate of 1/18 per hand.

In more conventional poker terms:

- Each player antes 1
- Each player is dealt one of the three cards, and the third is put aside unseen
- Player One can check or raise 1
  - If Player One checks then Player Two can check or raise 1
    - If Player Two checks there is a showdown for the pot of 2
    - If Player Two raises then Player One can fold or call
      - If Player One folds then Player Two takes the pot of 3
      - If Player One calls there is a showdown for the pot of 4
  - If Player One raises then Player Two can fold or call
    - If Player Two folds then Player One takes the pot of 3
    - If Player Two calls there is a showdown for the pot of 4

## References

- H. W. Kuhn, Simplified Two-Person Poker; in H. W. Kuhn and A. W. Tucker (editors), Contributions to the Theory of Games, volume 1, pages 97-103, Princeton University Press, 1950.

**Categories:** Poker variants

## Old Pink Poker

An extension of Kuhn poker, the game uses five cards, the Ace, King, Queen, and Jack of Diamonds, and the Queen of Hearts. It is a simple game, without blinds or antes. Each player receives one card, and then bets, raises or folds to gain the pot from their opponent.

It is generally played by two people, although it can be played by three or four, and is often used to settle arguments or grudges in a social group. The attraction lays in its simplicity, and the fact that it is based almost entirely on reading people, instead of statistics, although it can be resolved from a game theory perspective. It is most played in the South of England, where it also known as overtake poker, animal poker, elephant poker, or any other animal. The most common Old Pink name is apparently a reference to the Pink Floyd song Empty Spaces, which contains the phrase as a hidden message when played backwards.

**Categories:** Poker variants

## Let It Ride

*Let It Ride* is a casino variation of poker, played against the casino rather than against the other players. The game's relatively slow pace and the chance to pull back two of the three bets has made Let It Ride popular with older players and table game neophytes. At the same time, the game's slow pace has resulted in some casino dealers nicknaming the game "Let It Die". (A slow-paced game results in fewer tips for the dealer, hence the derogatory nickname.)

"Let It Ride" was invented by Shuffle Master, who owns the copyright to both the name of the game and the logo.

### Contents

- 1 Basic rules
- 2 How to Play
  - 2.1 Bets
  - 2.2 Optional side bet
  - 2.3 The deal
  - 2.4 The play

- 3 Strategy and house edge

## Basic rules

Let It Ride is a variation of five card stud where the player wagers on a poker hand consisting of three cards in the player's hand and two community cards in the dealer's hand. Like in video poker, the payout is determined by the ranking of the player's hand and the payout schedule.

### Payout schedule

Hand	Payout
<i>Royal flush</i>	1,000 to 1
<i>Straight flush</i>	200 to 1
<i>Four of a kind</i>	50 to 1
<i>Full house</i>	11 to 1
<i>Flush</i>	8 to 1
<i>Straight</i>	5 to 1
<i>Three of a kind</i>	3 to 1
<i>Two pair</i>	2 to 1
Pair of 10's or better	1 to 1

Please note that this is the standard payout schedule used at most casinos. Other payout schedules exist at the option of individual casinos, and appropriate strategy changes with different payout schedules.

## How to Play

### Bets

Each player places three equal bets in three spaces labeled (1),(2) and (\$).

### Optional side bet

Some casinos offer an optional \$1 side bet. This side bet offers an additional payout if the player's first three cards contains a winning hand. The house edge on this bet is generally over 13%, making it one of the worst bets for a player in a casino. A more common \$1 side bet is against a fixed payout scheduling typically starting with two pair (typically a \$4 payout,

but really only 3:1 since the original dollar is collected before the hand is dealt) or three of a kind (typically a \$8 payout).

## **The deal**

Each player receives three face down cards. The dealer receives two cards face down.

## **The play**

Let It Ride compares the player's poker hand with a payout chart, rather than comparing it with the other players' hands or the dealer's hand. The player's hand consists of the player's three cards and the dealer's two cards.

Each player is required to keep the three cards in full view of the dealer at all times.

Winners are paid according to the payout schedule (pair of 10's or better, two pair, etc.).

After looking at his three cards, each player has the option of pulling back the first bet or leaving the wager there. To leave the bet live is to "let it ride".

The dealer then exposes one community card. The players then each have the option of pulling back the second bet or letting it ride. After each player decides whether or not to pull back the second bet, the cards are placed face down on the designated area of the layout and may not be touched again.

The dealer then turns up the second community card and in a counterclockwise direction, turns the three cards of each player face up.

All losing wagers are then collected, and then all winning hands are paid by the dealer according to the payout schedule.

Regardless of the decision made concerning the first or second bets, a player may not take back the third bet.

Players are not allowed to show their hands to the other players, as this gives them an advantage by increasing their chances of knowing what cards the dealer is likely to turn up. In many casinos this is often not enforced at all or very sparingly. At a full table, it is sometimes difficult not to see the cards of a player on either side of you.

## **Strategy and house edge**

Like blackjack and video poker, player decisions in this game affect the house edge. The strategy outlined below assumes the standard payout structure shown above. With correct strategy, the casino's edge in Let It Ride is about 3.5%.

When deciding whether or not to let bet (1) ride, you should pull your bet back unless you have one of the following:

- Any paying hand. (A pair of tens or better.)
- Any three cards to a royal flush.
- Any three suited connectors where the lowest card is three or above.

- Three to a straight flush, spread four, with at least one card that's ten or higher.
- Three to a straight flush, spread five, with at least two cards ten or higher.

When deciding whether or not to let bet (2) ride, you should pull your bet back unless you have one of the following:

- Any paying hand. (A pair of tens or better.)
- Any four to a flush.
- Any four to an outside straight.
- Any four to an inside straight, if the four cards are ten or higher.

An outside straight is a draw to a straight that can be completed by two different cards, like 4-5-6-7. Any 3 and any 8 will complete the straight. There are eight cards in the deck that will complete an outside straight draw.

An inside straight is a draw to a straight that can only be completed by one specific card, like 4-5-6-8. Any 7 will complete the straight. There are only four cards in the deck that will complete an inside straight draw.

**Categories:** Poker variants

## Pai gow poker

*Pai gow poker*, or double-hand poker, is an Americanized version of Pai Gow, in that Pai Gow Poker is played with playing cards using poker hand rankings while Pai Gow is played with Chinese dominoes.

The game is played with a standard 52-card deck, plus a single joker. It is played on a table set for six players plus the dealer.

Each player is playing against the banker, who may be the casino dealer or one of the other players at the table.

### Contents

- 1 Object of the Game
- 2 The Deal
- 3 Hand Rankings
- 4 Determining a Win
- 5 Basic Strategy

## Object of the Game

The object of the game is to create two poker hands out of the seven cards in your hand: A five-card poker hand and a two-card poker hand. The five-card hand must rank higher than your two-card hand. The two-card hand is often called the hand "in front" or "on top", and



the five-card hand is called the hand "behind" or "bottom", as they are placed that way in front of the player when he is done setting them.

## **The Deal**

The cards are shuffled, and then dealt to the table in seven face-down piles of seven cards, with four cards unused, regardless of the number of people playing.

Betting positions are assigned a number from 1 to 7, starting with whichever player is acting as banker that hand, and counting counter-clockwise around the table. A random number from 1 to 7 is determined (either electronically or manually with dice), and the deal begins with that assigned position and proceeds counter-clockwise.

One common way of using dice to determine the dealer starting number is to roll three six-sided dice, then count betting spots clockwise from the first until the number on the dice is reached.

If a player is not sitting on a particular spot, the hand is still assigned but then placed in the discards with the four unused cards.

## **Hand Rankings**

The only two-card hands are one pair and high cards; no straights, flushes, and so on.

Five-card hands use standard poker hand rankings, with one exception: in most Nevada casinos, the hand *A-2-3-4-5* ranks above a king-high straight, but below the ace-high straight *A-K-Q-J-10*. At most casinos in California & Michigan, this rule doesn't apply; the *A-2-3-4-5* is the lowest possible straight.

The joker plays as a bug: that is, in the five-card hand it can be used to complete a straight or flush, if possible; otherwise it is an ace. In the two-card hand, it always plays as an ace. (Exception: In several Southern California casinos, the joker is completely wild.)

## **Determining a Win**

If each of your now-separated hands beats the banker's corresponding hand, then you win your bet. If only one of your hands beats the banker, then you push. If both of your hands lose to the banker, then you lose.

On each individual hand, ties go to the banker (for example, if your five-card hand loses to the banker and your two-card hand ties him, you lose). This gives the banker a small advantage. If you foul your hand, meaning that your low hand outranks your high hand or that there are an incorrect number of cards in each hand, there will be a penalty, either re-arrangement of the hand according to house rules or forfeiture of the hand.

In casino-banked games, the banker is generally required to set their hand in a pre-specified manner called "house way", so the dealer does not have to implement any strategy in order to beat the players. When a player is banking, he is free to set the hand however he

chooses. However, the player has the option of "co-banking" with the house, and if this option is chosen, the player's hand must also be set the house way.

California casinos typically charge a flat fee per hand, such as 5 cents or one dollar, to play, win or lose. Other casinos take out of winnings a 5% commission. While this seems high, it should be noted that a hand of Pai Gow poker takes a long time to play compared to, say, blackjack, and there are many pushes, so the house doesn't collect that 5% as often as it would collect the house percentage on other games.

## Basic Strategy

Generally speaking, one should try to set the highest two-card hand that you can legally set (that is, the best two-card hand that still leaves a higher five-card hand behind). More specifically, one should expect an "average" hand to be something like a medium-to-high pair behind in the five-card hand and an ace-high in front. Detailed computer analysis has been done to determine ideal strategy, but this requires memorizing large tables. A close approximation can be done with only a few rules of thumb. If you are playing in a casino, you can always ask that your hand be set "house way" if you are in doubt; most house strategies are quite reasonable and can be quite close to optimal strategy.

- If you have no pair, no straights, and no flushes, set the second- and third-highest cards in your two-card hand. For example, with *K-Q-J-9-7-4-3*, play *Q-J* and *K-9-7-4-3*. There are a few minor exceptions to this (for example, with *A-Q-10-9-5-4-2* it is slightly better to play *Q-9* and *A-10-5-4-2*), but these are rare and don't affect your win rate much.

- If you have nothing but a single pair, set it in your five-card hand and put the two highest remaining cards in your two-card hand. For example, with *A-Q-Q-9-6-5-3*, play *A-9* and *Q-Q-6-5-3*. There are no exceptions to this rule. This rule and the rule above will cover 90% of the hands you play.

- Two pair is the most common case where strategy isn't obvious. You can either play the high pair behind and small pair in front, or else two pair behind and high cards in front. The smaller your high pair and higher your remaining cards, the more you should be inclined to play two pair behind. If your side cards are small, or your larger pair is large, split the pairs. You should always split pairs if your high pair is aces, and almost always split if your high pair is kings or queens; they are high enough by themselves. With something like *J-J-4-4-A-Q-5* you can consider playing *A-Q* and *J-J-4-4-5*, since *A-Q* in front is not much worse than *4-4*, but two pair behind is much better than a single pair of jacks. Jacks and tens might be more inclined to split, because tens in front is much better than *A-Q*. With pairs as small as 7s and 8s, you might consider playing two pair behind if you can play a king-high or better in front. With 2s and 3s, you might even play as little as a queen-high in front. If you have no side cards higher than a jack, always split pairs, even 2s and 3s. (Most house ways split if there's a pair of 6s or higher, and split small pairs if there's no Ace for the low hand.)

- Three pair is a very good hand. Always play the highest pair in front, no exceptions. For example, with *K-K-7-7-4-4-A*, play *K-K* and *7-7-4-4-A*.

- If you have three of a kind and nothing else, play three of a kind behind and remaining high cards in front, unless they are aces--always split three aces, playing a pair of aces behind and ace-high in front. Occasionally, you can even split three kings if your remaining side cards are not queen-high (for example, with *K-K-K-J-9-7-6*, it is slightly better to play *K-J* and *K-K-9-7-6* than to play *J-9* and *K-K-K-7-6*). Most house ways only split three Aces.

- If you can play a straight or a flush or both, play whichever straight-or-better five-card hand makes the best two-card hand. For example, with *K'-9'-8c-7'-6c-5'-4'*, playing the flush would put *8-6* in front, playing the 9-high straight would put *K-4* up front, but the correct play is *K-9* and *8-7-6-5-4*. Occasionally, you will have a straight or flush with two pair; in that case, play as if it were two pair and ignore the straight or flush. This rule applies even if you can play a straight flush: if a straight or flush makes a better hand in front, play it that way.

- With a full house, generally play trips behind and the pair in front. The exception is if the pair is very small and your side cards are very high, for example, with *5-5-5-3-3-A-Q*, it might be better to play *A-Q* with the full house behind. These are rare, though, and you will never be making a big mistake if you never play a full house behind. House ways will always split the full house.

- With two sets of trips, play the higher as a pair in front, and the smaller trips behind. For example, with *Q-Q-Q-7-7-7-A*, play *Q-Q* and *7-7-7-A-Q*. No exceptions.

- With four of a kind, play as if it were two pair, but be slightly less inclined to split. For example, with *10-10-10-10-J-5-4*, play *10-10* and *10-10-J-5-4*; with *3-3-3-3-K-Q-7*, play *K-Q* and *3-3-3-3-7*. Most house ways always split the four of a kind.

- With three pair and a straight or flush (only possible with the joker), play as three pair (aces in front).

The cases below will probably never happen to you, but just in case:

- With four of a kind and a pair, play the pair in front unless it is very small and the four of a kind is very large. For example, with *9-9-9-9-7-7-K*, play *7-7* and *9-9-9-9-K*, but with *Q-Q-Q-Q-3-3-9*, you might play *Q-Q* and *Q-Q-3-3-9*. House ways always put the quartet in back and the pair in front.

- With a full house and a pair, play the higher pair in front and a full house in back.

- With four of a kind and trips, split the four to play a pair in front and full house behind. House ways will tend to break the trips.

- With all four aces and the joker, play a pair of aces in front and three aces (or a full house) behind UNLESS your back pair is a pair of kings; you get the honor of gloating on this one.

**Categories:** Poker variants

## Pyramid poker

*Pyramid poker* is a simplified version of pai gow poker, where instead of seven cards, three cards are dealt face down. It uses a standard 52 card deck without jokers. The hand rankings are just like in poker except that aces are always high. The dealer deals the player and himself 3 cards, which is arranged into a 2 card hand and a 1 card hand which should be smaller than the 2-card hand. There are no straights or flushes in the 2-card hand, and a higher ranked hand wins in both the hands. In order to win, the both the hands of the player has to be higher than the dealer's hands. If only one hand is higher and the other loses, then the bet is a tie or push. The players loses his bet if the dealer wins both ways. All copies (equal face value) shall go to the dealer giving the advantage to the house. There is also the "House Way" in this poker variant that adds more variety

**Categories:** Poker variants

## Red Dog

*Red Dog*, also known as *Red Dog Poker* or *Yablon*, is a game of chance played with cards. It is a variation of acey-duecey or in-between. While found in some land casinos, its popularity has declined, although it is featured at many casinos online.

The deck used to play Red Dog is the standard, fifty two card variety. The game may be played with anywhere from one to eight decks, with an increasing number of decks decreasing the house edge — the house's advantage begins at 3.155% with one deck, but falls to 2.751% when eight decks are used. This is in contrast with some other casino card games, such as blackjack, where a higher number of decks used will increase the house edge.

The game only uses three cards at a time, which are ranked as in poker, with aces high. Suit is irrelevant. A wager is placed, and two cards are placed face up on the table, with three possible outcomes:

- If the cards are consecutive in number (for example, a four and a five, or a jack and a queen), the hand is a push and the player's wager is returned.
- If the two cards are of equal value, a third card is dealt. If the third card is of the same value, then the payout for the player is 11:1, otherwise the hand is a push.
- If the two cards difference is greater than one place (for example, a three and an eight), then a spread is announced which determines the payoff, pending the outcome of a third card which will be dealt. If this third card's value falls between the first two, the player will receive a payoff according to the spread, otherwise the bet is lost. Before dealing the third card, the player has the option to double his bet.

The spread table is as follows:

<i>Spread</i>	<i>Payout</i>
1 card	5 to 1
2 cards	4 to 1
3 cards	2 to 1
4+ cards	1 to 1

Even when using eight decks, Red Dog does not offer favorable odds for the player in comparison with other games of chance common to casinos. There is little strategy involved; raises should only be made when a spread statistically favors a player (which is at seven cards or more, regardless of the number of decks used).

**Categories:** Poker variants

## Strip poker

*Strip poker* is a variant of the card game of poker, in which the rules require players to remove articles of clothing in response to various events. The first Strip Poker computer game was written by the German Gamedesigner Dieter Eckhardt in the late 1970's using the computers of an astronomical observatory near Düsseldorf.

### Rules

The game can be played based on any variety of poker, with the same number of players, dealing and betting rules, etc. There are a number of ways in which the rules can then be developed into strip poker. For example, at the end of each hand:

- The player with the worst hand must remove a piece of their clothing;
- or
- The player who loses the most money in that round must remove one;
- or
- The player with the best hand may remove it from them; or
- The player with the best hand may choose which player must lose an article; or
- All players except the winner of the hand lose an article. Note that this makes for an extremely brief game, unless fully-nude players are required to perform some action when they lose a hand, in which case it may even continue after all players are nude.
- Alternatively, whenever a player runs out of chips, they must trade a piece of clothing for a new (usually fixed) number of chips.
  - If players are then allowed to "buy back" clothing when they have won more chips, this can result in a zero-sum game, where there is no long-term net loss of clothing. (With two people, this will have the consequence that only

one of them is missing clothing.) (Note that "buying back" may be disallowed, so that the aggregate nudity is always increasing.)

As a further variant, players who have lost all of their clothing, achieving nudity, must perform sex acts.

## Popularity

There are no known professional associations. The U.S. TV show Strip Poker is in fact a general knowledge quiz, albeit one where contestants take (some of) their clothes off; though it involves cards in poker hands, the resemblance to the actual game is distant.

The most famous strip poker production was probably National Lampoon's Strip Poker, in which Playboy, World Wrestling Entertainment (WWE), and pin-up models competed in unscripted no limit Texas Hold 'em poker competition. The productions were filmed in their entirety at the Hedonism II nudist resort in Negril, Jamaica, and first aired on Pay-Per-View in 2005. The winner of the first episode of National Lampoon's Strip Poker was veteran Playboy model Taylor Kennedy, who stripped five other models completely naked in the process. National Lampoon's Strip Poker was the first title in National Lampoon's history to feature full (frontal) female nudity.

The prefix "strip" can be added on to a game title with a subsequent nudity-inducing adaptation of the rules (e.g., strip Candyland and strip chess).

While a popular subject for pornographic fantasy and video games, genuine research into strip poker as a form of sexuality is lacking. The element of risk and of (mock) coercion fits in with a general sexual approach of domination and submission and/or humiliation.

Strip poker and other sexual games can occur:

- as part of a mature sexual relationship, where the objective is to provide variety alongside intercourse (possibly introducing more adventurous/deviant forms of intercourse)
- as a ritual of courtship (in some circumstances it may be more acceptable for partners to enter intimate situations as part of a game)
- as recreation amongst adults with no intention to move towards sexual intercourse
- as part of a pornographic display (whether as part of prostitution or not) which combines sexual titillation with the normal interest of seeing a game played
- as a party game for youth
- as the basis of television game shows such as Räsypokka (Finland - 2002) and Strip! (Germany - 1999)

**Categories:** Poker variants

# Three card poker

*Three Card Poker* also called *Tricard poker* is a poker-based game that has recently become somewhat popular in American casinos. It actually consists of two separate games, Pairplus and Ante and Play. The players can choose to play either or both of the games.

## Contents

- 1 Pairplus
- 2 Ante and Play
  - 2.1 Normal Ante and Play gameplay
  - 2.2 The Ante Bonus
- 3 See also

## Pairplus

Pairplus is a simple bet on the cards with a payout for all hands of a pair or better.

## Ante and Play

### Normal Ante and Play gameplay

For *Ante and Play*, the player places an "ante" bet before receiving his cards. With this information, the player can fold his cards and lose the ante bet, or raise by placing out a bet of equal money to the ante bet. If he chooses to play, there are three possibilities. The first is that the dealer does not 'qualify'. To qualify, the dealer must have a hand of a Queen High or better. If the dealer does not qualify, the ante bet is paid out even money, but the play bet is simply returned. If the dealer does qualify, the player wins if his hand is of higher value than the dealer's, and gets paid out even money on both his ante and play bets. If the dealer's hand is of higher value, the dealer takes the Ante and Play bets. Rules vary on what happens when the hands are of exactly equal value: some say that the player simply gets his money back, but others say that the player is paid even money on his bet.

### The Ante Bonus

In addition to normal Ante and Play gameplay, there is a bonus payout on the ante bet for especially good hands.

### Ante Bonus Payouts

Hand	Table 1	Table 2	Table 3	Table 4
Straight flush	5 to 1	4 to 1	3 to 1	5 to 1
Three of a kind	4 to 1	3 to 1	2 to 1	3 to 1
Straight	1 to 1	1 to 1	1 to 1	1 to 1

These bonus payouts are paid only on the ante bet for any player who chooses to play, regardless of whether the dealer qualifies or whether the player wins or loses.

### See also

- Three card brag

**Categories:** Poker variants

## Online poker

### Contents

- 1 Overview
- 2 Legality
- 3 Integrity and fairness
- 4 Differences with conventional poker
- 5 Tracking play
- 6 Bonuses
- 7 Compatibility
- 8 Online poker portal
- 9 References

*Online poker* is the game of poker played over the Internet. It has been partly responsible for a dramatic increase in the number of poker players worldwide. For the year of 2005, revenues from online poker were estimated at US\$200 million per month.[1]

### Overview

Traditional (or "brick and mortar", B&M) venues for playing poker, such as casinos and poker rooms, may be intimidating for novice players and are located in geographically disparate locations. Brick and mortar casinos are also reluctant to promote poker because it is very difficult for them to profit from it. Though the rake, or time charge, of traditional



casinos is often very high, the opportunity costs of running a poker room are even higher. Brick and mortar casinos often make much more money by removing poker rooms and adding more slot machines.

Online venues, by contrast, are dramatically cheaper because they have much smaller overhead costs. For example, adding another table does not take up valuable space like it would for a brick and mortar casino. Online poker rooms tend to be viewed as more player-friendly. For example, the software may prompt the player when it is his or her turn to act. Online poker rooms also allow the players to play for very low stakes (as low as 1¢) and often offer poker freerolls (where there is no entry fee), attracting beginners.

Online venues may be more vulnerable to certain types of fraud, especially collusion between players. However, they also have collusion detection abilities that do not exist in brick and mortar casinos. For example, online poker room security employees can look at the "hand history" of the cards previously played by any player on the site, making patterns of behavior easier to detect than in a casino where colluding players can simply fold their hands without anyone ever knowing the strength of their holding. Online poker rooms also check player's IP addresses in order to prevent players at the same household or at known open proxy servers from playing on the same tables.

The major online poker sites offer varying features to entice new players. One common feature is to offer tournaments called satellites by which the winners gain entry to real-life poker tournaments. It was through one such tournament that Chris Moneymaker won his entry to the 2003 World Series of Poker. He went on to win the main event causing shock in the poker world. The 2004 World Series featured triple the number of players over the 2003 turnout. At least four players in the WSOP final table won their entry through an online cardroom. Like Moneymaker, 2004 winner Greg "Fossilman" Raymer also won his entry at the PokerStars online cardroom.

In October 2004, Sportingbet Plc, at the time the world's largest publicly traded online gaming company (SBT.L), announced the acquisition of ParadisePoker.com, one of the online poker industry's first and largest cardrooms. The \$340 million dollar acquisition marked the first time an online cardroom was owned by a public company. Since then, several other cardroom parent companies have gone public.

In June 2005, PartyGaming, the parent company of the largest online cardroom, PartyPoker, went public on the London Stock Exchange, achieving an initial public offering market value in excess of \$8 billion dollars. At the time of the IPO, ninety-two percent of Party Gaming's income came from poker operations.

In early 2006, PartyGaming moved to acquire EmpirePoker.com from Empire Online. UltimateBet's parent company also listed on the London Stock Exchange and other poker rooms such as PokerStars & Poker.com are rumored to be exploring initial public offerings.[2]

## **Legality**

From a legal perspective, online poker may differ in some ways from online casino gambling, but many of the same issues do apply. For a discussion of the legality of online gambling in general, see online gambling.

Online poker is legal and regulated in many countries including several nations in and around the Caribbean Sea, and most notably the United Kingdom.[3]

In February 2005 the North Dakota House of Representatives passed a bill to legalize and regulate online poker and online poker cardroom operators in the state. The legislation required that online poker operations would have to physically locate their entire operations in the state. Testifying before the state Senate Judiciary committee, Nigel Payne, CEO of Sportingbet, the owner of Paradise Poker, pledged to relocate to the state if the bill became law.[4]

The measure, however, was defeated by the State Senate in March 2005 after the U. S. Department of Justice sent a letter to North Dakota attorney general Wayne Stenehjem stating that online gaming "may" be illegal, and that the pending legislation "might" violate the federal Wire Act. However, many legal experts dispute the DOJ's claim.

North Dakota Rep. Jim Kasper (R-Fargo), the author of the legalization bill, has vowed to continue his efforts, stating that he is "not putting away the idea of getting into Internet gaming licenses in North Dakota" and that the "revenue we missed is too great to pass up." Kasper has also stated that he will introduce the legislation in the 2007 session of the North Dakota legislature.

In response to this and other claims by the DOJ regarding the legality of online poker, many of the major online poker sites stopped advertising their "dot-com" sites in American media. Instead, they created "dot-net" sites that are virtually identical but offer no real money wagering. The ads feature words to the effect of "this is not a gambling website". Televised ads still feature the dot-net conceit but print ads have been trending back toward advertising the dot-coms directly.

## **Integrity and fairness**

As with other forms of online gambling, many critics question whether the operators of such games - especially those located in jurisdictions separate from most of their players - might be engaging in fraud themselves.

Internet discussion forums are rife with unproven allegations of non-random card dealing, possibly to favour house-employed players or "bots" (poker playing software disguised as a human opponent), or to give multiple players good hands thus increasing the bets and the rake, or simply to prevent new players from losing so quickly that they become discouraged. However, there is little more than anecdotal evidence to support such claims, and others argue that the rake is sufficiently large that such abuses would be unnecessary and foolish. Many claim to see lots of "bad beats" with large hands pitted against others all too often at a rate that seems to be a lot more common than in live games. This might actually be caused by the fact that online cardrooms deal more hands per hour: online players get to see more hands, so their likelihood of seeing more improbable bad beats or randomly large pots is also increased.

However, to date there has been at least one site, ProPoker.com, that has been found to use serverside bots that play with the knowledge of players' cards and the cards yet to be dealt. It has since been shut down, with many players losing the funds they had on the site.

Many online poker sites are certified by bodies such as the Kahnawake Gaming Commission, and major auditing firms like PricewaterhouseCoopers review the fairness of the random\_number\_generator[5], shuffle[6], and payouts for some sites.

## **Differences with conventional poker**

There are substantial differences between online poker gaming and conventional, in-person gaming.

One obvious difference is that players do not sit right across from each other, removing any ability to observe others' reactions and body language. Instead, online poker players learn to focus more keenly on betting patterns, reaction time and other behavior tells that are not physical in nature. Since poker is a game that requires adaptability, successful online players learn to master the new frontiers of their surroundings.

Another less obvious difference is the rate of play. In brick and mortar casinos the dealer has to collect the cards, then shuffle and deal them after every hand. Due to this and other delays common in offline casinos, the average rate of play is around thirty hands per hour. Online casinos, however, do not have these delays; the dealing and shuffling are instant, there are no delays relating to counting chips (for a split pot), and on average the play is faster due to "auto-action" buttons (where the player selects his action before his turn). It is not uncommon for an online poker table to average sixty to eighty hands per hour.

This large difference in rate of play has created another effect among online poker players. In the brick and mortar casino, the only real way to increase your earnings is to increase your limit. In the online world players have another option, play more tables. Unlike a physical casino where it would be nearly impossible to play multiple tables at once, most online poker rooms allow this. Depending on the site, a player might play from 4 to 10 tables at the same time, viewing them each in a separate window on the computer display. For example, a player may make around \$10 per 100 hands at a lower limit game. In a casino, this would earn them under \$4 an hour, which minus dealer tips would probably barely break even. In an online poker room, the same player with the same win rate could play four tables at once, which at 60 hands per hour each would result in an earning of \$24/hour, which is a modest salary for somebody playing online poker. Some online players even play eight or more tables at once, in an effort to increase their winnings.

Another important change results from the fact that online poker rooms, in some cases, offer online poker schools that teach the basics and significantly speed up the learning curve for novices. Many online poker rooms also provide free money play so that players may practice these skills in various poker games and limits without the risk of losing real money. People who previously had no way to learn and improve because they had no one to play with now have the ability to learn the game much more quickly and gain invaluable experience from free money play.

## **Tracking play**

Tracking poker play in a B&M casino is very difficult. You can easily monitor your winnings, but tracking any detailed statistics about your game requires a player to take notes after each hand, which is cumbersome and distracting.

Conversely, tracking poker play online is easy. Most online poker rooms support "Hand Histories" text files which track every action both you and your opponents made during each hand. The ability to specifically track every single played hand has many advantages. Many third-party software applications process hand history files and return detailed summaries of poker play. These not only include exact tallies of rake and winnings, which are useful for tax purposes, but also offer detailed statistics about the person's poker play. Serious players use these statistics to check for weaknesses or "leaks" (mistakes that leak money from their winnings) in their game. Such detailed analysis of poker play was never available in the past, but with the growth of online poker play, it is now commonplace among nearly all serious and professional online poker players.

## **Bonuses**

While the practice of comping players with free meals, hotel rooms, and merchandise is quite common in B&M casinos, online poker rooms have needed to develop new ways to reward faithful customers. The most common way of doing this is through deposit bonuses, where the player is given a bonus code to enter when placing money into an account. The bonus code adds either a percentage, or a set amount of chips to the value of the deposit. Besides this, several online cardrooms employ VIP Managers to develop VIP programs to reward regular players.

## **Compatibility**

Most online poker rooms offer downloadable Microsoft Windows programs that require an emulator program to run on Apple Macintosh or Linux computers. However, several rooms do have clients that run natively on Mac or Linux.

## **Online poker portal**

An online poker portal is a website offering poker-related content. Examples of such content could be news, tournament results, strategy articles or reviews of online poker cardrooms.

Some portals have a considerable amount of content, while others attempt to act as mere conduits to other sites, normally where actual gambling games are offered.

## **References**

1. ^ Digital Journal

2. ^ London Times
3. ^ MSNBC
4. ^ Bismarck Tribune
5. ^ Random number generator analysis
6. ^ Shuffling review

Categories: Poker

## List of poker related topics

### List of poker-related topics

See main article at poker.

- Rules of the game
  - Hands **and** rank of hands
  - Betting structure
  - Variants
    - Draw poker (**including** five-card draw)
    - Stud poker (**including** five-card stud **and** seven-card stud)
    - Community card poker (**including** Texas hold 'em **and** Omaha hold'em)
      - Casino games with poker-like rules (including Caribbean stud and Pai Gow poker)
    - Three-card poker **including** (**including** three card brag)
      - Chinese poker
    - Non-standard poker hands
  - Public cardroom rules
  - Cheating
- Poker strategy
  - Fundamental theorem of poker
  - Morton's theorem
  - Pot odds
    - Poker plays
      - Aggressive plays
      - Bluffing plays
      - Check-raise plays
      - Defense plays
      - Drawing plays
      - Isolation plays
      - Position plays
      - Protection plays
      - Slow plays
      - Stealing plays
    - Poker probability
    - Poker probability (Texas hold 'em)

- Psychology **and** tells
- Other gameplay and strategy
- Tournaments
  - World Series of Poker
  - World Poker Tour
  - Other notable tournaments
- Online poker
- Poker jargon
  - List of slang names for poker hands
    - Poker companies
- Poker television programs

Poker-related games include non-poker vying games commonly played along with poker such as Seven twenty-seven and Bourré, and unrelated games that use poker hands in various ways such as Liar's poker.

Categories: Poker

# Roulette and wheel games

*Roulette* is a casino and gambling game (Roulette is a French word meaning "small wheel"). A croupier turns a round roulette wheel which has 37 or 38 separately numbered pockets in which a ball must land. The main pockets are numbered from 1 to 36 and alternate between red and black, with number 1 being red. There is also a green pocket numbered 0. In most roulette wheels in the United States but not in Europe, there is a second zero compartment marked 00, also colored green.

If a player bets on a single number and wins, the payout is 35 to 1. The bet itself is returned, so in total it is multiplied by 36. (In a lottery one would say 'the prize is 36 times the cost of the ticket', because in a lottery the cost of the ticket is not returned additionally.)

A player can bet on numbers, combinations, ranges, odds/evens, and colors.

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- 1 History of Roulette
- 2 Types of Roulette
- 3 Board depiction (American Roulette)
- 4 Bet odds table (American Roulette)
- 5 House Edge
- 6 Called Bets
  - 6.1 Voisins ("Neighbors")
  - 6.2 Tiers ("The third")
  - 6.3 Orphelins ("Orphans")
- 7 Betting Strategies and Tactics
  - 7.1 Betting Only on Red
  - 7.2 Betting multiple times
- 8 Famous Bets
- 9 See also

## History of Roulette

The first form of roulette was first devised in 17th century France, by the mathematician Blaise Pascal, who was supposedly inspired by his fascination with perpetual motion devices. In 1842, fellow Frenchmen François and Louis Blanc added the "0" to the roulette wheel in order to increase house odds. Roulette was brought into the U.S. in the early 1800s, and again in order to increase house odds a second zero, "00", was introduced - although in some forms of early American roulette the double-zero was replaced by an American Eagle. In the 1800s, roulette spread all over both Europe and the U.S., becoming one of the most famous and most popular casino games. Some call roulette the "King of Casino Games", probably because it was associated with the glamour of the casinos in Monte Carlo. (François Blanc actually established the first casinos there).

A legend tells about François Blanc, who supposedly bargained with the devil to obtain the secrets of roulette. The legend is based on the fact that if you add up all the numbers on the roulette wheel (from 1 to 36), the resulting total is "666", which is the "Number of the Beast" and represents the devil.

## Types of Roulette

There are two types of roulette, American roulette and European roulette. The difference between the two types is the number of 0's on the wheel. American roulette wheels have two "0's", zero and double-zero, which increases the house advantage to 5.3%. In European roulette there is only one zero, giving the house an advantage of 2.7%.

The two versions also use chips differently. American roulette uses so-called "non-value" chips, meaning that all chips belonging to the same player are of the same value determined at the time of the purchase, and the player cashes in the chips at the roulette table. European roulette uses standard casino chips of differing values as bets, which can make the game more confusing for both the croupier and the players.

A traditional European roulette table is also much larger than an American roulette table, and the croupier uses a long tool called a rake to clear out the chips and to distribute winnings. In American roulette the croupier collects and distributes chips by hand.

There is actually a third type of roulette wheel in use. It is a hybrid of the two versions described above, and is the only kind of wheel that is legal in the United Kingdom. This wheel has an American (English language) layout and a single zero. When a single-zero wheel is used in the United States, it is almost always this type.

## Bet odds table (American Roulette)

(in addition to the mentioned payout the bet is returned)

Bet name	Winning spaces	Payout	Odds of winning (against)	Expected value (on a \$1 bet)
0	0	35 to 1	37 to 1	-\$0.053
00	00	35 to 1	37 to 1	-\$0.053
1	1	35 to 1	37 to 1	-\$0.053
2	2	35 to 1	37 to 1	-\$0.053
...	...	...	...	...
36	36	35 to 1	37 to 1	-\$0.053
Row 00	0, 00	17 to 1	18 to 1	-\$0.053
Row 3	1, 2, 3	11 to 1	11.667 to 1	-\$0.053
Row 6	4, 5, 6	11 to 1	11.667 to 1	-\$0.053
Row 9	7, 8, 9	11 to 1	11.667 to 1	-\$0.053
...	...	...	...	...
Row 36	34, 35, 36	11 to 1	11.667 to 1	-\$0.053
Column 1	1, 4, 7, ..., 34	2 to 1	2.167 to 1	-\$0.053
Column 2	2, 5, 8, ..., 35	2 to 1	2.167 to 1	-\$0.053



Column 3	3, 6, 9, ..., 36	2 to 1	2.167 to 1	-\$0.053
First 12	1, 2, 3, ..., 12	2 to 1	2.167 to 1	-\$0.053
Middle 12	13, 14, 15, ..., 24	2 to 1	2.167 to 1	-\$0.053
Last 12	25, 26, 27, ..., 36	2 to 1	2.167 to 1	-\$0.053
Odd	1, 3, 5, ..., 35	1 to 1	1.111 to 1	-\$0.053
Even	2, 4, 6, ..., 36	1 to 1	1.111 to 1	-\$0.053
Red	1, 3, 5, 7, 9, 12,	1 to 1	1.111 to 1	-\$0.053
	14, 16, 18, 19, 21, 23,			
	25, 27, 30, 32, 34, 36			
Black	2, 4, 6, 8, 10, 11,	1 to 1	1.111 to 1	-\$0.053
	13, 15, 17, 20, 22, 24,			
	26, 28, 29, 31, 33, 35			
1 to 18	1, 2, 3, ..., 18	1 to 1	1.111 to 1	-\$0.053
19 to 36	19, 20, 21, ..., 36	1 to 1	1.111 to 1	-\$0.053
five number bet	0, 00, 1, 2, 3	6 to 1	6.6 to 1	-\$0.079

Note also that 0 and 00 are neither odd nor even in this game.

## House Edge

The *house average* or *house edge* is the amount the player loses relative to a bet, on average. If a player bets on a single number in the American game there is a probability of 1/38 that the player receives 36 times the bet (35 times the bet plus the return of the bet itself), so the player ends up, on average, losing 5.26% on each bet:

$(\text{probability} * \text{payout}) / \text{bet} - 1 = \text{expected value as fraction of bet}$

For example, betting \$10 on a single number on an American wheel:

$((1/38) * 360) / 10 - 1 = -0.0526$

The house has the same edge on all of the other kinds of bets, except for the five number bet where the house edge is considerably higher (7.89% on an American wheel).

The house edge should not be confused with the *hold*. The hold is the total amount that the house wins from a player. While the house might have an edge of 5.26%, if a player keeps playing until his or her bankroll is exhausted, the house will enjoy a hold of 100%.

## Called Bets

There are a number of series in roulette that have special names attached to them. These are placed by betting a set amount per series (or multiples of that amount). They are based on the way in which certain numbers lie next to each other on the roulette wheel. Not all casinos offer these bets.

### **Voisins ("Neighbors")**

This is a name for the numbers which lie between 22 and 25 on the wheel including 22 and 25 themselves. The series is 22,18,29,7,28,12,35,3,26,0,32,15,19,4,21,2,25 (on a single zero wheel).

9 chips or multiples thereof are bet.

### **Tiers ("The third")**

This is the name for the numbers which lie on the opposite side of the wheel between 27 and 33 including 27 and 33 themselves. The series is 27,13,26,11,30,8,23,20,5,24,16,33 (on a single zero wheel).

6 chips or multiples thereof are bet.

### **Orphelins ("Orphans")**

These numbers make up the two slices of the wheel outside the Tiers and Voisins. They contain a total of eight numbers, the Orphans comprising 17,34,6 and the Orphelins being 1,20,14,31,9.

8 chips or multiples thereof are bet.

## **Betting Strategies and Tactics**

Albert Einstein is reputed to have stated, "You cannot beat a roulette table unless you steal money from it."

And yet, the numerous even money bets in roulette have inspired many players over the years to attempt to beat the game by using one or more variations of a Martingale betting strategy, wherein the gamer doubles the bet after every loss, so that the first win would recover all previous losses, plus win a profit equal to the original bet. As the referenced article on Martingales points out, this betting strategy is fundamentally flawed in practice and the inevitable long-term consequence is a large financial loss. There is *no way* such a betting strategy can work over the long term. Another strategy is the Fibonacci system, where bets are calculated according to the Fibonacci sequence. Regardless of the specific progression, no such strategy can ever overcome the casino's advantage; players trying them will inevitably lose sooner or later.

While not a strategy to win money, New York Times editor Andres Martinez described an enjoyable roulette betting method in his book on Las Vegas entitled "24/7". He called it the "dopey experiment". The idea is to divide your roulette session bankroll into 35 units. This unit is bet on a particular number for 35 consecutive spins. Thus, if the number hits in that time, you've won back your original bankroll and can play subsequent spins with house

money. If your number never hits - well, it can take a great deal of time to spin the wheel 35 times; think of the fun you'll have in that time! In practice, this dopey experiment often results in funny looks from the dealer at first; soon, however, every gambler at the table will be putting money on your number. This turns roulette into a group activity that can rival craps for cheers when the number hits. However, there is only a  $(1 - (37/38)^{35}) * 100\% = 60.68\%$  probability of winning within 35 spins (assuming a double zero wheel with 38 pockets).

There is a common misconception that the green numbers are "house numbers" and that by betting on them one "gains the house edge." In fact, it is true that the house's advantage comes from the existence of the green numbers (a game without them would be statistically fair) however they are no more or less likely to come up than any other number.

Various attempts have been made by engineers to overcome the house edge through predicting the mechanical performance of the wheel, most notably by Joseph Jagger, the man who broke the bank at Monte Carlo in 1873. These schemes work by determining that the ball is more likely to fall at certain numbers. Claude Shannon, a mathematician and computer scientist best known for his contributions to information theory, built arguably the first wearable computer to do so in 1961.

To try to prevent exploits like this, the casinos monitor the performance of their wheels, and rebalance and realign them regularly to try to keep the result of the spins as random as possible.

More recently Thomas Bass, in his book *The Newtonian Casino* 1991, has claimed to be able to predict wheel performance in real time. He is also the author of *The Eudaemonic Pie*, which describes the exploits of a group of computer hackers, who called themselves the Eudaemons, who in the late 1970s used computers in their shoes to win at roulette by predicting where the ball would fall.

In the early 1990's, Gonzalo Garcia-Pelayo, realizing that most roulette wheels are not "perfect", used a computer to model the tendencies of the roulette wheels at the Casino de Madrid in Madrid, Spain. Betting the most likely numbers, along with members of his family, he was able to win over one million dollars over a period of several years. A court ruled in his favor when the legality of his strategy was challenged by the casino.

In 2004, it was reported that a group in London had used mobile cameraphones to predict the path of the ball, a cheating technique called sector targeting. In December 2004 court adjudged that they didn't cheat because their special laser cameraphone and microchip weren't influencing the ball - they kept all £1.3m.

## **Betting Only on Red**

One conceivable strategy would be to bet on the ball landing in a red space for a certain number of spins, for example, 38.

There are 18 red spaces on a roulette table with 38 total spaces. Dividing 18 by 38 yields a probability of landing on red of 47.37%. This probability can be used in a binomial distribution and made into an approximate standard normal distribution.

Doing so indicates that, if one were to spin the wheel 38 times, there is a 99% probability that the ball would land on red at least 10 times. There is an 83% probability that in 38 spins, the ball will land on red at least 15 times. Out of 38 spins, there's a 50% chance that 18 will be red.

However, the break-even point is 19 spins, since the bet on red is 2:1, and the probability of 19 red spins in 38 is only 37%. This indicates the difficulty of winning by only betting on red.

The results occur because, as indicated by the 18 divided by 38 equals 47.37% figure, the ball will land on red less than half the time. This percentage applied in the binomial and standard normal distributions creates the vast divide in probability from 18 red spins to 19 red spins out of 38 spins. Basically, it is very unlikely for anyone to spin much more than 18 red spins out of 38 spins.

## **Betting multiple times**

This type of bet is a combination of the red bet and the martingale system. Except this bet also includes the odd. What you do is you start off with a bet of 1 on each the red and the odd (or you can do the black and even). You treat each bet separately. When one bet loses, you double it. When one bet wins, you set it back to 1. The reason that this technique keeps you in the game so long is that there is a 25% chance of you winning both the red and the odd and there's a 50% chance that you will break even. Of course in order for this method to last, you would need an unlimited source of money.

## **Famous Bets**

- In 2004, Ashley Revell of London sold all of his possessions, clothing included, and brought US\$135,300 to the Plaza Hotel in Las Vegas and put it all on "Red" at the roulette table in a double-or-nothing bet. The ball landed on "Red 7" and Revell walked away with his net-worth doubled to \$270,600.
- In the 1942 film *Casablanca*, Rick's Café Americain has a trick roulette wheel. The croupier can cause it to land on 22 at will. Rick (Humphrey Bogart) urges a Bulgarian refugee with whose case he becomes sympathetic to put his last three chips on 22 and motions to the croupier to let him win. After the man's number dramatically comes up, Rick tells him to let it all ride on 22 and lets him win again. Although the details are not mentioned in the film (the croupier only notes that they are "a couple of thousand" down), it appears that Rick has given the man 3675 ( $3 \times 35 \times 35$ ) francs.
- In the music video for *Palace & Main* by Kent, guitarist Harri Mänty goes to Las Vegas and bets the entire video budget on black. He wins, and the profits were donated to charity.
- In the third part of the 1998 film *Run, Lola, Run*, Lola uses all her money to buy a 100-mark chip. (She is actually just short of 100 marks, but gains the

sympathy of a casino employee who gives her the chip for what money she has.) She bets her single chip on 20 and wins. She lets her winnings ride on 20 and wins again, making her total winnings 100,000 marks.

## See also

- Russian roulette
- Straperlo
- 

# Big Six wheel

## Contents

- 1 Money wheel
- 2 Dice wheel
- 3 Other variations

The *Big Six wheel* is a gambling game based on a large vertical spinning wheel, similar to the wheel used on the television game show *Wheel of Fortune*. (The wheel used on the show is mounted horizontally, however.) The wheel is divided into sections, separated by spokes or pins. The wheel is spun by a dealer, and the winning section is indicated by a pointer mounted on a flexible piece of rubber or leather, which also rubs against the pins to impart friction and slow the wheel down.

Bettors wager on what number or symbol appears in the winning section, and are paid at odds that are based on the distribution of that symbol on the wheel. Most wheels have 54 sections. The numbers or symbols used differ according to the variation of the game.

## Money wheel

The version most commonly seen in American casinos use pieces of U.S. currency — specifically, the \$1, \$2, \$5, \$10 and \$20 bills — and two special symbols, usually a joker and the casino logo. Bets on the \$1 bill pay even money, on the \$2 bill pay 2-1, on the \$5 bill pay 5-1, and so on. These odds are based on how many slots contain each bill. The joker and logo appear in one slot each, and pay off at odds of 40-1 or 45-1, depending on local gaming regulations and/or the generosity of the game operator.

The house advantage in this game is one of the highest in most casinos, ranging from 11.1% on the \$1-bill bet to more than 24% on the joker or logo (when it pays 40-1).

### **Dice wheel**

This variation is based on the now-uncommon game of chuck-a-luck (also known as "birdcage"), with many similarities to sic bo. The symbols on the wheel represent combinations of three dice. Players bet on the numbers 1 through 6. If the number appears on one of the dice, the bet is paid at even money; on two dice, the payoff is at 2-1 odds; and on all three dice, the payoff is 3-1. Because only 54 three-die combinations are on the wheel (as opposed to 216 possible combinations on three actual dice), the house advantage on this variation is even worse than the chuck-a-luck "edge" of 7.87%.

This variety is seldom seen in casinos, but frequently seen as a carnival game, or at a charity "Monte Carlo night" fund-raiser.

### **Other variations**

Some operators will use different variations of symbols and payoffs, but they are infrequent. One known variation was used for a short time at the now-defunct Grand Casino in Gulfport, Mississippi (destroyed in 2005 by Hurricane Katrina). Called "Mississippi Derby," a player would bet on one of eight "horses" to win, place or show, as with betting in horse racing. The horses were represented on the wheel in three concentric rings, with the outer ring representing the winner, the middle ring representing the second-place horse, and the inner ring representing the third-place horse. The payoffs varied from horse to horse, depending on how many times the number appeared on the rings; odds ranged from 40-1 for the "longshot" to win, down to 1-2 for the "favorite" to show. The game was short-lived.

**Categories:** Roulette and wheel games

## **Martingale (roulette system)**

Originally, *martingale* referred to a class of betting strategies popular in 18th century France. The simplest of these strategies was designed for a game in which the gambler wins his stake if a coin comes up heads and loses it if the coin comes up tails. The strategy had the gambler double his bet after every loss, so that the first win would recover all previous losses plus win a profit equal to the original stake. Since a gambler with infinite wealth is guaranteed to eventually flip heads, the martingale betting strategy was seen as a sure thing by those who practiced it. Unfortunately, none of these practitioners in fact possessed infinite wealth, and the exponential growth of the bets would quickly bankrupt those foolish enough to use the martingale after even a moderately long run of bad luck.

## Analysis

Suppose that someone applies the martingale betting system at an American roulette table, with 0 and 00 values; a bet on either red or black will win 18 times out of each 38. If the player's initial bankroll is \$160 and the betting unit is \$10, the player will make a win in approximately 96% of sessions, gaining an average of \$4.30 from each winning session. In the remaining 4% of sessions, the player will "bust", exhausting his bankroll, for a loss of \$160. It follows then that the average session losses of a gambler employing this strategy are \$2.27. Given a larger bankroll, the odds of making a win before running out of cash increase; however, the average winnings grow more slowly than the average losses, so the game remains a losing proposition.

Modern casinos generally have table minimums and maximums to prevent players from doubling their bets more than five or six times, rendering the martingale system obsolete.

**Categories:** Wagering | Roulette and wheel games

## Petits-Chevaux

*Petits-Chevaux*, French for "little horses", is a gambling game played with a mechanical device consisting of a board perforated with a number of concentric circular slits, in which revolve, each independently on its own axis, figures of jockeys on horseback, distinguished by numbers or colors. The bystanders having staked their money according to their choice on a board marked in divisions for this purpose, the horses are started revolving rapidly together by means of mechanism attached to the board, and the horse which stops nearest a marked goal wins, every player who has staked on that horse receiving so many times his stake. Figures of railway trains and other objects sometimes take the place of horses. In recent years there has been a tendency to supplant the petits chevaux at French resorts by the boule or ball game, on the same principle of gambling; in this a ball is rolled on a basin-shaped table so that it may eventually settle in one of a number of shallow cups, each marked with a figure.

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**Categories:** Roulette and wheel games | Gambling

## Russian roulette

*Russian roulette* (in Russian: (CAA:00) C;5B:0, >r (Russkaya) Rulyetka) is the practice of placing a single round in a revolver, spinning the cylinder and closing it into the firearm without looking, aiming the revolver at one's own head in a suicidal fashion, and pulling the trigger. The number of rounds placed in the revolver can vary, though as a rule there will

always be at least one empty chamber. As a gambling game, toy guns are often used to simulate the practice. The number of deaths caused by this practice is unknown.

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- 1 History
- 2 Notable Russian roulette incidents
  - 2.1 Reality
- 3 Toy gun version
  - 3.1 Equipment
  - 3.2 Play
  - 3.3 Odds
- 4 See also

## History

Legends abound regarding the invention of Russian roulette. Most of these, predictably, take place in Russia, or occur among Russian soldiers.

In one legend, 19th century Russian prisoners were forced to play the game while the prison guards bet on the outcome. In another version, desperate and suicidal officers in the Russian army played the game to impress each other.

The earliest known use of the term is from "Russian Roulette", a short story by Georges Surdez in the January 30, 1937, issue of Collier's Magazine. A Russian sergeant in the French Foreign Legion asks the narrator,

"Feldheim... did you ever hear of Russian Roulette?" When I said I had not, he told me all about it. When he was with the Russian army in Rumania, around 1917, and things were cracking up, so that their officers felt that they were not only losing prestige, money, family, and country, but were being also dishonored before their colleagues of the Allied armies, some officer would suddenly pull out his revolver, anywhere, at the table, in a cafe, at a gathering of friends, remove a cartridge from the cylinder, spin the cylinder, snap it back in place, put it to his head, and pull the trigger. There were five chances to one that the hammer would set off a live cartridge and blow his brains all over the place. Sometimes it happened, sometimes not.

Whether Czarist officers actually played Russian roulette is unclear. In a text on the Czarist officer corps, John Bushnell, a Russian history expert at Northwestern University, cited two near-contemporary memoirs by Russian army veterans, *The Duel* (1905) by Aleksandr Kuprin and *From Double Eagle to Red Flag* (1921) by Petr Krasnov. Both books tell of officers' suicidal and outrageous behaviour, but Russian roulette is not mentioned in either text. If the game did originate in real life behavior and not fiction it is unlikely that it started with the Russian military. The standard sidearm issued to Russian officers from 1895 to 1930 was the Nagant M1895 revolver. A primitive double-action revolver, the Nagant's cylinder spins freely until the hammer is cocked. While the cylinder does not swing out as in modern hand-ejector style double action revolvers, it can be spun around to randomize the



result. However, it holds seven cartridges not six, which throws some doubt on the accuracy of the reference in Collier's.

The only reference to anything like Russian roulette in Russian literature is in a book entitled *A Hero of Our Time* by Mikhail Lermontov (1840, translated by Vladimir Nabokov in 1958), where a similar act is performed by a Serbian soldier: the dare however is not named as "Russian roulette". Russian officers did play a game called "cuckoo" with a Nagant revolver, in which one officer would stand on a table or a chair in a dark room. Others would hide and yell "cuckoo" and the man with the gun would fire at the sound.

In the 1978 movie *The Deer Hunter*, the game is also depicted as being played in Vietnam. According to one website claiming to offer insight into the practice of Russian roulette, Valerie Douglas, whose father's cousin and father were in the Vietnam War states that Russian roulette occurred both for gambling and murder. [1] Several teen deaths following the movie's release caused police and the media to blame the film's depiction of Russian roulette, saying that it inspired the youths. There is also an interesting Russian roulette scene in the Japanese film *Sonatine*, directed by Takeshi Kitano.

A semi-automatic pistol, unlike a revolver, will automatically load and fire a round if it has any rounds, Or may contain a round in the chamber even when the Magazine is removed. There has been at least one Darwin Award resulting from an attempt to play Russian roulette with such a pistol. This variation is sometimes referred to as "Polish roulette,"—a bigoted play on the stereotype of Polish people being of low intelligence—though its actual origins are disputed.

"Russian Poker" is a variation of Russian Roulette - the difference being that in Russian Poker, one's opponent places the gun up to the other person and pulls the trigger.

## **Notable Russian roulette incidents**

### **Reality**

On December 24, 1954 the American blues musician Johnny Ace shot himself to death in Texas playing Russian roulette in a dressing room before a concert.

John Hinckley, Jr. was known to play Russian Roulette, alone, on two occasions (although neither time he pulled the trigger was the bullet in the firing chamber). Hinckley also took a picture of himself in 1980 pointing a gun at his head.

On February 28, 2000, Rashaad, A 19-year-old Houston resident attempted to play Russian roulette with a semi-automatic pistol, apparently unaware that the mechanics of the game change with a weapon other than a revolver. However, the Darwin Award sources are often suspect. [2]

On June 12, 2001, Clinton Pope, a 16-year-old young man with a criminal record who had been drinking and smoking marijuana for the night, fired a bullet into his face while playing Russian roulette before his friends in St. Petersburg, Florida, U.S. He was sent to a hospital and was in critical but stable condition.[3]

On March 29, 2003, Evan Below, a 14-year-old boy, shot and killed himself while playing Russian roulette with a .38-caliber revolver in the kitchen of a friend's house in Casper, Wyoming, U.S. The weapon was taken by the houseowner's son from his mother's bedroom.

On August 7, 2004, Samantha Goodson, 16, shot her boyfriend, Michael Gerald Henry, 18, dead while they were playing a version of Russian roulette in a house in Jamaica, Queens, New York, U.S. She was charged with manslaughter and criminal possession of a weapon.

On August 23, 2004, a 25-year-old Greek soldier, Antonis Syros, was shot in the forehead by a revolver that had held a single bullet at the gates of an Olympic village at Mount Parnitha in Athens, Greece. He was playing Russian roulette "jokingly" with Christos Chloros, a policeman, while he was standing guard.

On March 17, 2006, a 15 year-old teen named Astrid Uytterhaegen shot herself dead while being peer pressured into the whole incident & game by her associates. Her body was supposedly found in a ditch, where she had been left to hide any evidence. Traces of alcohol had also been found.

On April 14, 2006, a 16-year-old teen from Peoria, Arizona shot himself to death while playing Russian roulette on his porch with a friend.

On June 8, 2006, 16-year-old Sean Jones from Jacksonville, Florida shot himself to death while playing Russian roulette on the front porch of his friend's house. He only fired once.

In addition to these specific incidents, it has been alleged that William Shockley, co-inventor of the transistor and winner of the Nobel Prize for Physics attempted suicide by playing a solo game of Russian roulette [4].

## **Toy gun version**

### **Equipment**

The primary piece of equipment used to play modern Russian roulette is a toy gun that has a 1/6 probability of activating when the trigger is pulled. The gun may be a dedicated device, or it could be a video game light gun connected to a computer programmed for Russian roulette simulation.

### **Play**

All players put money in the pot. Each player in turn points the gun at their head and pulls the trigger. If the gun activates, the person holding the gun is eliminated from the game. The last player remaining wins the pot.

### **Odds**

Assuming a six-shot revolver and that each hole is equally likely to be under the hammer[1], the probability of losing in the first round is 1 in 6 and the probability increases with each trigger pull. On the 6th trigger pull the probability of losing is 1 in 1 (100%).

Turn	p(Loss)
1	$1/6 = 0.166\ldots$
2	$1/5 = 0.2$
3	$1/4 = 0.25$
4	$1/3 = 0.333\ldots$
5	$1/2 = 0.5$
6	$1/1 = 1$

If the cylinder is spun after every shot, the odds of losing remain the same, 1/6 each time the trigger is pulled; in this case, in a two-person to-the-death game, it is better to go second (if the first person loses, the second person wins, even if he would have lost on his next move — this is equivalent to the house advantage in blackjack, where the house wins if the player busts, even if the dealer himself also is going to bust).

## See also

- Roulette

- <sup>^</sup> The argument that each hole is equally likely to be under the hammer is contestable. It has been argued that the weight of the bullet will tend to make the cylinder rest with the bullet towards the bottom. This would lower the probability of losing somewhat on early rounds, and increase the mid-game odds in games where the cylinder is not re-spun. One way that this 'bullet bias' could be eliminated is to spin the cylinder with the barrel pointed down, so the cylinder spins on a vertical axis instead of a horizontal one.

**Categories:** Roulette and wheel games

## Straperlo

*Straperlo* or *Stra-Perlo* was the brand of a fraudulent electric roulette game, promoted by Strauss and Perlowitz.

In 1935 during the Second Spanish Republic, they tried to introduce the Stra-Perlo in the San Sebastián and Formentor casinos in Spain. Corruption connected with the prohibition of the game reached the nephew of Alejandro Lerroux and caused the downfall of his Radical Party. The political centre was abandoned and the Spanish public polarized, contributing to the Spanish Civil War.

After the war, estraperlo acquired the meaning of black market, the illegal trade of ration items.

**Categories:** Roulette and wheel games | Gambling

# Sheepshead

*Sheepshead* is a card game related to the Skat family of games, originating in Central Europe in the late 1700's under the German name Schafkopf. Although Schafkopf literally means "sheepshead", the term is actually derived from Middle High German and referred to playing cards on an overturned barrel (from kopfen, meaning playing cards, and Schaffen, meaning a barrel).

Sheepshead is played by two to five players, where the variant with five players is the most common, by far. The German cards, which are generally used for playing in southern Germany, are listed below in the order of value for the trumps. Poker or French cards (Clubs, Spades, etc.) have direct equivalents with German cards.

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- **1 How to play**
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    - 1.9.3 Following Suit
  - 1.10 Continuing the hand
  - 1.11 Play is over. Count the cards.
- **2 Strategy**

## How to play

### Preparation

Remove the jokers and all sixes, fives, fours, threes, and twos from the pack. Sheepshhead is played with all the cards 7-8-9-10-J-Q-K-A, i.e. a total of 32 cards.

### Play Variations

There are a number of different play variations for Sheepshhead. These include the number of players (from two to five), differences in scoring, differences when no partners are named (leasters/doublers), and differences in the way partners are chosen (Pick Partner/Jack of Diamonds partner).

The article will describe how to play "Five Handed, Leasters, Pick Partner", but will try to touch on the other variations.

### Card Order

Card order in Sheepshhead is unique and one of the most difficult things for some beginners to grasp.

There are 14 trump cards, including all the Queens, Jacks, and Diamonds, listed here in order of strength to take tricks:

- Qc - Q` - **Qe - Qf**
- Jc - J` - **Je - Jf**
- Af - 10f - Kf - 9f, 8f, 7f

Also, there are 6 of each "fail" suit. (18 total)

- A, 10, K, 9, 8, 7 of c (clubs)
- A, 10, K, 9, 8, 7 of ` (spades)
- A, 10, K, 9, 8, 7 of **e (hearts)**

Clubs, Spades, and Hearts take no precedence over other fail suits. Trump always take fail. The lead suit must be followed if possible.

### Card Point Values

Point scoring will also take some getting used to. You should make a chart for yourself the first time you play.

- Queens - 3 points
- Jacks - 2 points

- Aces - 11 points
- Tens - 10 points
- Kings - 4 points
- 9,8,7 - 0 points

Note that the strongest cards (Queens and Jacks) are not worth the most points. This gives Sheepshhead some of its unique character.

There is a total of 120 points in the deck.

## Keeping Score

Be careful not to confuse the points that the cards are worth, and the total point score. Points are given/taken on a zero-sum basis. If you are the picker, your goal is to take 61 points. If picker gets 60, that's a tie and picker loses.

Here is a chart to make it easier. Look up the picker's point total in the chart below.

Point Total	Picker (Alone)	Picker (w/ Partner)	Partner	Opponents
All Tricks	+12	+6	+3	-3
91 to 120	+8	+4	+2	-2
61 to 90	+4	+2	+1	-1
31 to 60	-4	-2	-1	+1
0 to 30	-8	-4	-2	+2
No Tricks	-12	-6	-3	+3

- Once you reach 31 points, that means you have schneider.
- There are 120 points in the deck. It's possible to take a trick that is worth zero points, which is why the distinction of "All Tricks" and "No Tricks" is necessary.
- Every opponent gains or loses the amount listed.

## The Deal

Cut the deck. The dealer deals 3 cards at a time to each person, starting with the player to dealer's left. After dealing everyone 3 cards, 2 cards are put face down in a separate pile (the "blind"). Then deal the rest of the cards, 3 at a time around the table again.

When done, each person should have 6 cards with 2 cards in the blind.

## The Blind

The player to the left of the dealer gets first choice to take the blind. If he passes, the option is given to the next player (in clockwise order).

If the blind goes all the way around to the dealer, and the dealer declines to play, a leaster is played. (If you are playing *doublers* instead of leasters, the points are doubled, the deal moves one to the left, and a new hand is dealt.)

Whoever decides to take the blind is called the "picker". The picker adds the 2 cards to his hand, then must choose two cards to lay down, or "bury". The buried cards are automatically added to the picker's score.

Now, the picker must choose: He can either play alone (picker against 4 opponents) or can choose a partner (picker/partner against 3 opponents).

*Variation of play:* One variation of play at this point is that, when a player picks up the blind, any player (who is not the pickers partner) who was not given the opportunity to pick up the blind may 'knock' or 'crack' by knocking the table with their fist. This automatically doubles the point values in the table above for determining the score when the game ends. In addition, you may also allow that, after a player cracks, the picker has the option to 'reocrack', which redoubles it again, or to 4 times the values at the end of the game.

In another variation, after a crack the partner may 'crack-around-the-corner' and double the game, but revealing his or her relation to the picker if the game is being played with the jack of diamonds as partner.

Another variation allows players to double further by 'blitzing' as well as cracking. A player may blitz by revealing either the two black queens, the two red queens, or the two black jacks from his or her hand. A blitz can only be initiated after a crack has occurred. A combination of these variations follows.

#### **Example:**

- Player 1: Passes
- Player 2: Picks
- Player 3: has two black jacks
- Player 4: is partner, has two red queens
- Player 5: has nothing significant to illustration

In this scenario Player 3 blitz's by showing his jacks. Player 4 responds with a blitz-crack-around-the-corner by revealing her queens and jack of diamonds. Player 1 also decides to 'reocrack'. The score is doubled four times as a result of the four maneuvers. This game will be worth 16 times the original amount. Blitzing can lead to large point escalation and, thus, is not used often.

### **Getting a Partner**

One of the more intriguing aspects of Sheepshead is that you have different teams with each hand. Generally you will not know who your partner is until specific cards are played.

## Called ace

If you pick the blind and decide that your hand isn't good enough to "go it alone", you must select a called ace suit. Some notes about choosing the called suit:

Basically, when the picker calls a suit, whoever has the Ace of that suit is the partner.

- Called suit must be a fail suit (clubs, spades or hearts).
- Picker must have at least one of the fail suit in his/her hand. (Special case: an unknown can be played if a player has no fail suits--i.e. all trump--see below)
- Picker cannot call a suit for which he has the Ace.
- If the picker has all 3 fail Aces (it happens occasionally), he can "call a 10" instead of the Ace. The picker is obligated to hold the Ace of that suit in their hand. When the called suit is led, the picker must play the Ace. In addition, the person with the 10 takes the trick if it is not trumped.
- Unknown. If the picker has no fail suit to use for the called suit, he can pick a card to "act as the called suit". Example: picker has all trump or the Ace in all their fail suits. Picker can take a low diamond (**9f**lets say) and lay it face down on the table, and call (for example) Spades. That **9f** stays face down until Spades is lead (or until nothing else can be laid down). That particular **9f**, since it was designated an "unknown", has no power to take tricks but the points associated with that card still count at the end of the game. No one besides the player who took the ace trick is allowed to look at the unknown card.

## Examples of picker hands

{Taking the blind, burying, and selecting partner...}

Hand 1: **Qe, Af**, Ac, 10c, 7c, **7e**

- You probably shouldn't take the blind. With only 2 trump it's not really worth it.

Hand 2: Jc, **Jf, Af, 8f**, A', **Ae**

- Don't take the blind. You have 4 trump, but they are mostly little. If you have a chronic picking problem you may pick on this.
- If you pass on the blind, you have a very good chance of ending up partner, since you have 2 of the 3 fail aces.
- This is a decent partner hand, with the trump and lots of point to "schmear" to your partner.

Hand 3: Q', **Qe, Jf, Kf, 10e**, 10c

- With 20 points to bury, this wouldn't be a bad hand to pick on.
- A rule of thumb: If you can foresee schneider, pick.
- -- In Blind: **8f**, 7c
- The blind wasn't that good, so you definitely want to pick a partner.



- You could bury both 10s for the sure points, and then you would have to call clubs. The problem with this is that the called Ace has little chance of walking. There would be only 3 more clubs out there

- It is recommended to bury both 7c and 10c and calling hearts. This is a tough case, and if you aren't feeling that lucky maybe burying both 10s (and therefore guaranteeing yourself 20 points) would be the best idea.

Hand 4: Qc, **Qf, Af, 10f, Ae, Ke**

- This is a very good hand to pick on.
- There are 15 points to bury (**Ae** and **Ke**) and that's basically half way to schneider (31 points)
- -- In Blind: Jc, **9f**
- (Special note: If this player had gotten another Queen in the blind, (s)he could surely go alone)
- Player should keep the two additional trump, then bury the **Ae** and **Ke**
- Hand is now: Qc, **Qe**, Jc, **Af, 10f, 9f** (all trump)
- Picker now has the option of getting a partner (or not). This is a very good hand and might be a winner if attempted "alone"
- If the picker wants a partner, he has to call an "unknown" since he has nothing but trump. He can take his **9f**, place it face down on the table, then call it any suit he wants (besides Hearts, since he just buried the Ace of Hearts). Let's just say "clubs". Now, that an unknown was called, that **9f** cannot be used on any trick except the called suit. (Or on the last trick if the called suit was never lead during the game)
- This hand is good enough that he might get a "Thanks for the ride" from his partner. This usually means that you could have gone it alone.

Hand 5: Q`, **Qe, Jf, 10f, 7f, Ke**

- Five trump, with 2 Queens and 1 Jack. This is definitely a picking hand.
- -- In Blind: Qc, J`
- The big queen and a good Jack -- a near perfect hand.
- Hand is now: Qc, Q`, **Qe, J`, Jf, 10f**
- With the 3 big queens, buried trump and other very good cards, this hand is a good choice to go alone on.
- You will get at least 3 tricks, and have a very good chance of taking them all.

### Jack of Diamonds

Instead of choosing a partner, some play that the Jack of Diamonds is automatically partner.

In general you can pick on weaker hands when playing **Jf** partner because you are always guaranteed that your partner will have at least one trump (the **Jf** - there is no such guarantee playing Called Ace). Some suggestions:

- Bare aces are nearly as good as trump. Unless your hand is really bad and you want to guarantee points, keep bare aces.
- If you can bury 20 points, you only need one more good trick to make Schneider, the minimum you want. It is a judgement call you have to make, deciding between getting the points (burying them) or keeping the cards to use in play.
- You can always go it alone, but don't do it unless you have a really good hand. If you got all 4 queens, of course then you could go alone.
- If the picker has the **Jf** in his hand, there are two possible rules:
  - Picker plays alone (possibly with a poor hand)
  - Picker can select **Je** partner instead

## Playing the Cards

Always remember the goal of Sheepshead is to get as many points as possible. You can take 4 out of 6 tricks and still lose point-wise. Always aim first for schneider (31 pts for picker, 30 otherwise).

At this point, there are basically 3 possibilities of play.

1. Leasters
2. Playing Alone
3. With Partner

## Leasters

In leasters, you must take at least one trick to win. Each person plays for him/herself. At the end of the hand the person with the lowest score (and at least one trick) wins 1 point from each of the other players (4 total).

What do you do with the blind? Generally the blind is included with the very last trick played. Alternatively, the dealer (before play begins) calls out the number of the trick that will include the blind. See Leasters.

## With Partner: Playing the first card

The player to the left of the dealer leads first. Here are some guidelines, but no rule is 100% accurate all the time. Use your judgment. This is the most common hand (picker+partner vs. 3 opponents) that you will play.

If you are the first one to play and are ...

- on the opposing team with the called Ace suit - lead the called ace suit. (i.e. if called suit is spades, lead a spade if you can)

- on the opposing team without called Ace suit - don't lead trump. You are in a good position to trump the called suit if one of your partners can lead that suit. Lead some other (non-trump) suit if you can.
- the partner - lead trump if at all possible. You want to try to bleed trump out of the opposing team's hands so that the called Ace trick is more likely to walk. At this point, leading trump will demonstrate to people that you are probably the partner.
- the partner - with no trump. Don't lead the called suit. Hold that until later in the game. Lead some other suit, preferable a suit that has not been led before and you are not long on (your short suit). You want to give the picker the best chance taking the trick and that will happen if all your opponents have this fail suit and the picker can trump it.
- the picker - usually lead with trump. The goal is to get everyone to play out their trump so the called suit doesn't get taken.

### **Following Suit**

- Players must follow suit if possible. Note that Queens and Jacks are considered trump, and are not a "suit" as such. Example, **7e** is lead. You have a **Qe** and a **10e**. Since the Queen is not technically a heart (it's trump) you must play the Ten.
- A player who cannot follow suit may play any card he wants. (A picker or partner cannot play the called ace or his last card of the called suit (unless it is the last trick)).
- If you do not lead, and are an opponent with the called suit and the big queen, lay the big queen and take the trick. Then lead the called suit and hopefully the your team can trump it.

### **Continuing the hand**

Whoever takes a trick gets to lead the next one. Play continues in this manner until the last trick is played.

### **Play is over. Count the cards.**

When all tricks have been played, the picker can count his cards and then either receives points or gives up points. See above under "Keeping Score" for a chart.

- If the picker went alone and took all the tricks, he/she gets 3 points from all 4 opponents.

- If the picker chose a partner and took all the tricks, pickers gets 3 points from 2 opponents, partner gets 3 points from 1 opponent.
- If the opponents took at least a trick, but didn't make schneider, the payout is 2 points.
- If the opponents made schneider, but didn't win, the payout is 1 point.
- If the opponents win and the picker made schneider, each opponent gets 1 point
- If the opponents win and the picker didn't make schneider, each opponent gets 2 points
- If the opponents take all the tricks, each opponent gets 3 points.

Some Sheepshead players have a rule that if the picker doesn't win, he (and partner) must pay double. (Known as "double on the bump")

Note that all scoring has a zero sum total. This means that at any point you can add all 5 player scores together and the total should be zero.

## Strategy

- Picker and partner should try to bleed the opponents of their trump before leading out the called Ace suit. This gives the called Ace a much better chance of walking.
- In a Called-Ace variant, the opponent should lead out the called suit if possible. It is a rare circumstance where the picker/partner should lead out the called suit.
- Card counting is a very valuable skill to have when playing Sheepshead. Many good sheepshead players can tell you how many points you have without even having to count! If you don't have a photographic memory, you can start off by keeping track of which Queens and Jacks were played. Just doing that much is better than not counting cards at all. This is a learned skill, so keep practicing. If you are the picker, you should at the very least keep count of the 14 trump cards so you know when your opponents are out of trump.
- The order of play is a very important consideration. There is a distinct benefit to "being on the end", and if you are partner with the picker on the end, that should affect the card you play.
  - Scenario: First player is one of the opponents and lead with an 8c. You are partner and have a 10c and Kc. Since you are long (more than one) in clubs, you would expect someone to trump this trick. You are next, with 2 opponents after you and the picker is on the end. Since the picker is on the end, you generally would throw the 10c (10 points) rather than the Kc (4 points). Assume the picker will be able to trump the trick. In other words, when in doubt, **schmear**.
- Leaster strategy: Keep in mind a player has to win at least one trick to qualify for the win. Oftentimes, a player will be so worried about accumulating points that he/she will fail to pick up a single trick.

## Blind

In the card game Sheepshhead, the *blind* are the cards face down on the table after the initial deal. No one knows what is in the blind until it is picked up.

Once a player picks the blind, that person becomes "The Picker".

If you are playing a leaster, the blind often will go to the person taking the last trick.

Hoyle refers to the blind as the "widow", but that usage is not common.

Categories: Sheepshhead

## Leasters

*Leasters* is a type of Sheepshhead game where players "play for the least". Players attempt to collect as few points as possible, while still taking at least one trick to win. If a player does not win a trick that player can not win the leaster.

Typical leaster winners take a total of 10-20 points. Since players must take at least one trick, it's theoretically possible for one person to take all the tricks, and thus win the leaster.

### Leaster Strategy

- More often than not, the hand is won by jumping on a low-point trick with a high queen. In other words, players will seldom want to throw away that Queen of spades or hearts when the queen of clubs is played. It might be better to save it so you can be sure to be able to pounce on the right trick.
- If a player has the Ace of a fail suit ("bare Ace"), it is wise to get rid of it as soon as possible. A trick taken by a bare ace can easily exceed 30 points.
- When schmearing sometimes a player will be better off holding on to that 10 or Ace. That value might be needed to dump on an opponent trying to get a low point trick.

Categories: Sheepshhead

## Long

A *long* suit in Sheepshhead is where a player has two or more cards of the same (non-trump) suit. These suits include hearts, spades, and clubs.

Here is a list of cards part of the non-trump suit:

- Ace
- Ten
- King

- Nine
- Eight
- Seven

Notice that there are only 6 cards. If you have 2 (or more) of them, the chances that every other player having the same suit is rather minimal (or impossible if you are playing 5 hand and you have 3 cards of one suit).

In other words, let's say you have the Ace, 8 and 7 of hearts. If you lead out the hearts suit, you should expect that someone is going to trump it. (There are only 3 hearts left, and 4 players!) Unless you know otherwise, you generally wouldn't lead the ace or ten if you have a long suit. Lead out a smaller card and save that Ace to smear it later. (And chances are, on a long suit, that that Ace WILL become smear for someone..)

Categories: Sheepshead

## Schmear

A schmear or shmearing refers to a strategy used in the card game, Sheepshead.

A *schmear* is when a player plays a high point card (Ace, Ten or King) with the hope that their partner(s) will get the trick.

An example of schmearing:

1. Partner leads **10f** (10 points)
2. Opponent 1 plays Qc (3 points)
3. Opponent 2 plays **Af** (11 points)
4. Picker plays **8f** (0 points)
5. Opponent 3 (out of trump) plays 10` (10 points)

This trick was worth 34 points. That's schneider all by itself.

Opponent 1 won the trick as soon as s/he laid down the big Queen. As a result, opponents 2 and 3 both took advantage of the situation and put high-counting cards down. Also note that the picker played the **8f**, a no-counting card.

Categories: Sheepshead

## Schneider

*Schneider* is a German word that in the card game Sheepshead refers to a card point total, half of what is needed to win, that players aim for.

The picker/partner team needs 31 points to reach schneider. The opponents need 30 points.

A losing team that gets at least one trick but does not reach schneider must pay double.

Categories: Sheepshead

# Walk

In *Sheepshead*, the term "walk" refers specifically to non-trump suits (and most often the called ace suit). If it walks, that means that no trump was played and the Ace won the trick.

Note about Called Ace:

Since neither picker nor partner can play trump on the called ace suit, it leaves the opponents an opening to easily trump the trick. For this reason, the picker/partner normally do not want to lead the called suit too early in the hand. It's better for the picker to lead trump and try to bleed the opponent's trump supply before leading the called suit. Conversely, the opponents generally want to lead with the called suit as early in the hand as possible.

Categories: Sheepshead

## Variations of Sheepshead

There are many *variations of Sheepshead*. This is not a definitive list.

### Contents

- 1 Clubs as trump
- 2 Crack and Re-crack
- 3 Jack of Diamonds Partner
- **4 See also**

### Clubs as trump

Instead of diamonds, clubs can be used at the trump suit. Queens and Jacks remain the same value.

### Crack and Re-crack

If a player has a good hand, he or she can "crack" when someone takes the blind before they get the chance. The stakes double when this happens. The picker can then "re-crack" if they believe their hand is good enough to win, which would quadruple the stakes. If playing for quarters, a re-cracked game where the picker doesn't get schneider will cost the picker \$4.00 for that hand alone --  $\$.25 \times 4$  (picker, did not get schneider)  $\times 4$  (re-cracked).

## **Jack of Diamonds Partner**

In a common variations, instead of calling an ace, the player with the Jack of Diamonds automatically becomes the partner. If the picker has the Jack of Diamonds, some games play that he can call Jack of Hearts partner instead. Others will play picker has to go it alone. This variation will often be used when playing with six players.

Categories: Sheepshead



# Slot machines

A *slot machine* (American English), *poker machine* (Australian English), or *fruit machine* (British English) is a certain type of casino game. Traditional *slot* machines are coin-operated machines with three or more reels, which spin when a lever on the side of the machine is pulled. The machines include a currency detector that validates the coin or money inserted to play. (The slot machine is also known informally as a *one-armed bandit* because of its appearance and its ability to leave the gamer penniless.) The machine typically pays off based on patterns of symbols visible on the front of the machine when it stops. Modern computer technology has resulted in many variations on the slot machine concept. Today, slot machines have become one of the most popular attractions in casinos.

## Contents

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## History

Sittman and Pitt of Brooklyn, New York developed a gambling machine in 1891 that could be considered a precursor to the modern slot machine. It contained 5 drums holding a total of 50 card faces and was based on poker. This machine proved extremely popular and soon there was hardly a bar in the city that didn't have one or more of the machines bar-side. Players would insert a nickel and press a lever, which would spin the drums and the cards they held, the player hoping for a good poker hand. There was no direct payout mechanism, so a pair of Kings might get you a free beer, whereas a Royal Flush could payout cigars or drinks, the prizes wholly dependent on what was on offer at the local establishment. In order to make the odds better for the house, two cards were typically removed from the "deck": the Ten of Spades and the Jack of Hearts, which cut the odds of winning a Royal Flush by half. The drums could also be re-arranged to further reduce a player's chance of winning.

The first "one-armed bandit" was invented in 1887 by Charles Fey of San Francisco, California, who devised a much simpler automatic mechanism [1]. Due to the vast number of possible wins with the original poker card-based game, it proved practically impossible to come up with a way to make a machine capable of making an automatic pay-out for all possible winning combinations. Charles Fey devised a machine with three spinning reels containing a total of five symbols – horseshoes, diamonds, spades, hearts and a Liberty Bell, which also gave the machine its name. By replacing ten cards with five symbols and using three reels instead of five drums, the complexity of reading a win was considerably reduced, allowing Fey to devise an effective automatic payout mechanism. Three bells in a row produced the biggest payoff, ten nickels. Liberty Bell was a huge success and spawned a thriving mechanical gaming device industry. Even when the use of these gambling devices was banned in his home State after a few years, Fey still couldn't keep up with demand for the game elsewhere.

Another early machine gave out winning in the form of fruit flavoured chewing gums with pictures of the flavours as symbols on the reels. The popular cherry and melon symbols derive from this machine. The "BAR" symbol now common in slot machines was derived from an early logo of the Bell-Fruit Gum Company. In 1964, Bally developed the first fully electromechanical slot machine called Money Honey.

## Description

A person playing a slot machine purchases the right to play by inserting coins, cash, or in newer machines, a bar-coded paper ticket (known as "ticket in/ticket out" machines), into a designated slot on the machine. The machine is then activated by means of a lever or button, or on newer machines, by pressing a touchscreen on its face. The game itself may or may not involve skill on the player's part — or it may create the illusion of involving skill without actually being anything else than a game of chance. The object of the game is to win money from the machine. The game usually involves matching symbols, either on mechanical reels that spin and stop to reveal one or several symbols, or on a video screen. The symbols are

usually brightly colored and easily recognizable, such as images of fruits, and simple shapes such as bells, diamonds, or hearts.

Most games have a variety of winning combinations of symbols, often posted on the face of the machine. If a player matches a combination according to the rules of the game, the slot machine pays the player cash or some other sort of value, such as extra games.

There are many different kinds of gambling slot machines in places such as Las Vegas. Some of the most popular are the video poker machines, in which players hope to obtain a set of symbols corresponding to a winning poker hand. There are standard 5-card draw machines, all the way up to 100-play machines, where you can play 100 hands at a time.

Becoming more popular now are the 9 line slots. Usually these are themed slots, with graphics and music based on popular entertainers or TV programs (Addams Family, I Dream of Jeannie, etc.) with a bonus round. Most accept variable amounts of credit to play with 1 to 5 credits per line being typical. The higher the amount bet, the higher the payout will be.

Of course, there are the standard 3 - 5 reel slot machines, of various types. These are the typical "one-armed bandits".

One of the main differences between video slots and reel slots is in the way payouts are calculated. With reel slots, the only way to win the maximum jackpot is to play the maximum number of coins (usually 3, sometimes 4, or even 5 coins per spin). With video slots, the fixed payout values are multiplied by the number of coins per line that are being bet. In other words: on a reel slot, it is to the player's advantage to play with the maximum number of coins available. On video slots, it is recommended to play as many individual lines as possible, but there is no benefit to the player in betting more than one credit per line with regards to calculating the payout amounts. (There are some isolated cases where a video slot machine requires the maximum number of credits per spin to be inserted to win the largest payout, but those are the exception.) An example: On the "Wheel of Fortune" reel slot, the player must play 3 coins per spin to be eligible to trigger the bonus round and possibly win the jackpot. On the Wheel of Fortune video slot, the chances of triggering the bonus round or winning the maximum jackpot are exactly the same regardless of the number of coins bet on each line.

Larger casinos offer slot machines with denominations from \$.01 (penny slots) all the way up to \$100.00 or more per credit. Large denomination slot machines are usually cordoned off from the rest of the casino into a "High Limit" area, often with a separate team of hosts to cater to the needs of the high-rollers who play there.

Slot machines common in casinos at this time are more complicated. Most allow players to accept their winnings as credits, which may be "spent" on additional spins.

In the last few years, new slot machines commonly known as "multi-denomination" have been introduced. In a multi-denomination slot machine, the player can choose the value of each credit wagered from a list of options. Based upon the player's selection, the slot machine automatically calculates the number of credits the player receives in exchange for the cash inserted and displays the amount of available credits to the player. (For example, a player could choose to wager one dollar per game on a nickel slot machine.) This eliminates the need for a player to find a specific denomination of a particular slot machine; they can concentrate on simply finding the machine and setting the denomination once they decide to play.

Recently, some casinos have chosen to take advantage of a concept commonly known as "tokenization": 1 token buys more than one credit. A casino can configure slot machines of numerous different denominations to accept the same type of token. (For example, all penny, nickel, quarter, and dollar slot machines could be configured to accept dollar tokens.) This significantly reduces a casino's inventory costs and coin handling costs. A tokenized slot machine automatically calculates the number of credits the player receives in exchange for the token inserted and displays the amount of available credits to the player. When a player chooses to collect his credits (by pressing a "Cash Out" button), the slot machine will automatically divide the number of credits on the credit meter by the value of one token and return the result to the patron. Any remainder is known as "residual credits" and cannot be collected. Residual credits must be either played or abandoned.

## Terminology

*Bonus* is a special feature of the particular game theme, which is activated when certain symbols appear in a winning combination. In the bonus, the player is presented with several items on a screen from which to choose. As the player chooses items, a number of credits is revealed and awarded. Some bonuses use a mechanical device, such as a spinning wheel, that works in conjunction with the bonus to display the amount won.

*Candle* is a light on top of the slot machine. It flashes to alert the operator that a hand pay is requested or that there is a problem with the machine.

*Carousel* refers to a grouping of slot machines.

*Coin hopper* is a container where the coins that are immediately available for payouts are held. The hopper is a mechanical device that rotates coins into the coin tray when a player collects his credits/coins (by pressing a "Cash Out" button). When a certain preset coin capacity is reached, a coin diverter automatically redirects, or "drops", excess coin into a "drop bucket" or "drop box".

*Credit meter* is a visual display of the amount of money or credits on the machine.

*Drop bucket* or *drop box* is a container located in a slot machine's base where excess coins are diverted from the hopper. Typically, a drop bucket is used for low denomination slot machines and a drop box is used for high denomination slot machines. A drop box contains a hinged lid with one or more locks whereas a drop bucket does not contain a lid. The contents of drop buckets and drop boxes are collected and counted by the casino on a scheduled basis.

*Hand pay* refers to a payout made by a slot attendant or cage, rather than the slot machine. A hand pay occurs when the amount of the payout exceeds the maximum amount that was preset by the slot machine's operator. Usually, the maximum amount is set at the level where the operator must begin to deduct taxes. A hand pay could also be necessary as a result of a short pay.

*Hopper fill slip* is a document used to record the replenishments of the coin in the coin hopper after it becomes depleted as a result of making payouts to players. The slip indicates the amount of coin placed into the hoppers, as well as the signatures of the employees involved in the transaction, the slot machine number and the location and the date.

*Low Level* or *Slant Top* slot machines include a stool so you can sit and play. *Stand Up* or *Upright* slot machines are played while standing.

*Optimal play* is a payback percentage based on a gambler using the optimal strategy in a skill-based slot machine game.

*Payline* is a straight or zig-zagged line that crosses through one symbol on each reel, along which a winning combination is evaluated. Classic spinning reel machines usually have up to nine paylines, while video slot machines may have as many as fifty.

*Rollup* is the process of dramatizing a win by playing sounds while the *meters* count up to the amount that has been won.

*Short pay* refers to a partial payout made by a slot machine, which is less than the amount due to the player. This occurs if the coin hopper has been depleted as a result of making earlier payouts to players. The remaining amount due to the player is paid as a hand pay.

*Tilt* In the old mechanical days, slot machines had tilt switches. Any kind of mechanical failure (door switch in the wrong state, reel motor failure, etc) is still called a "tilt". Just a historical thing.

*Theoretical Hold Worksheet* is a document provided by the manufacturer for all slot machines, which indicates the theoretical percentage that the slot machine should hold based on adequate levels of coin-in. The worksheet also indicates the reel strip settings, number of coins that may be played, the payout schedule, the number of reels and other information descriptive of the particular type of slot machine.

*Weight count* is an American term, referring to the dollar amount of coins or tokens removed from a slot machine's drop bucket or drop box and counted by the casino's hard count team through the use of a weigh scale.

## **Pay Table**

Each machine has a table that lists the number of credits the player will receive if the symbols listed on the pay table line up on the pay line of the machine. Some symbols are wild and will pay if they are visible in any position, even if they are not on the pay line. Especially on older machines, the pay table is listed on the face of the machine, usually above and below the area containing the wheels. Most video machines display the pay table when the player presses a "pay table" button or touches "pay table" on the screen; some have the pay table listed on the cabinet as well.

## **Technology**

### **Random number generator**

It is a common belief that the odds on a machine have something to do with the number of each kind of symbol on each reel, but in modern slot machines this is no longer the case. Modern slot machines are computerized, so that the odds are whatever they are programmed to be. In modern slot machines, the reels and lever are present for historical and entertainment reasons only. The positions the reels will come to rest on are chosen by a Random Number Generator (RNG) contained in the machine's software. This is called "virtual reel" technology.

The RNG is constantly generating random numbers, at a rate of thousands to millions per second. As soon as the lever is pulled or the "Play" button is pressed, the most recent random number is used to determine the result. This means that the result varies depending on exactly when the game is played. A fraction of a second earlier or later, and the result would be different.

### **Payout percentage**

Slot machines are typically programmed to pay out as winnings between 82 to 98 percent of the money that is wagered by players. This is known as the "theoretical payout percentage". The minimum theoretical payout percentage varies among jurisdictions and is typically established by law or regulation. For example, the minimum payout percentage in Nevada is 75 percent and in New Jersey is 83 percent. The winning patterns on slot machines, the amounts they pay, and the frequency at which they appear are carefully selected to yield a certain percentage of the cost of play to the "house" (the operator of the slot machine), while returning the rest to the player during play. Suppose that a certain slot machine costs \$1 per spin. It can be calculated that over a sufficiently long period, such as 1,000,000 spins, that the machine will return an average of \$950,000 to its players, who have inserted \$1,000,000 during that time. In this (simplified) example, the slot machine is said to pay out 95%. The operator keeps the remaining \$50,000.

A slot machine's theoretical payout percentage is set at the factory when the software is written. Changing the payout percentages after a slot machine has been placed on the gaming floor requires a physical swap of the software, which is usually stored on an EPROM but may be downloaded to Non-Volatile Random Access Memory (NVRAM) or even stored on CD-ROM or DVD depending on the technological capabilities of the machine and the regulations of the jurisdiction. Based on current technology, this is a time consuming process and as such is done infrequently. In certain jurisdictions, such as New Jersey, the EPROM is sealed with a tamper-evident seal and can only be changed in the presence of Gaming Control Board officials. Other jurisdictions, including Nevada, randomly audit slot machines to ensure that they contain only approved software.

In many markets where central monitoring and control systems are used to link machines for auditing and security purposes, usually in wide area networks of multiple venues and thousands of machines, player return must usually be changed from a central computer rather than at each individual machine. A range of percentages are preprogrammed into the game software and selected by configuring the machine remotely.)

In 2006, the Nevada Gaming Commission began working with Las Vegas casinos on technology that would allow the casino's slot manager to change the game, the odds, and the payouts remotely via a computer. The change cannot be done instantaneously, but only after the selected machine has been idle for at least four minutes. After the change is made, the machine must be locked to new players for four minutes and display an on-screen message informing potential players that a change is being made. ref)

## **Linked machines**

Often machines are linked together in a way that allows a group of machines to offer a particularly large prize, or "jackpot". Each slot machine in the group contributes a small amount to this progressive jackpot, which is awarded to a player who gets (for example) a royal flush on a video poker machine, or a specific combination of symbols on a regular or 9 line slot machine. The amount paid for the progressive jackpot is usually far higher than any single slot machine could pay on its own.

In some cases multiple machines are linked across multiple casinos. In these cases, the machines may be owned by the machine maker who is responsible for paying the jackpot. The casinos lease the machines rather than owning them outright. Megabucks may be the best known example of this type of machine. Megabucks Nevada starts at \$7,000,000 after a jackpot. The new penny Megabucks video game has a jackpot that starts at \$10,000,000.

Slot machines that are not linked to a large regional jackpot such as Megabucks usually have higher payout percentages, as linked machines have to take into consideration the large jackpot amount into their payout percentage calculations.

## **Near-miss programming**

Because the reel display of modern slot machines is controlled by computer software, it is possible to make the slot machine frequently display combinations that are close to winning combinations. For instance, if the jackpot combination is "7-7-7", a slot machine could be programmed to frequently display "7-7-(non-7)". This can fool the player into thinking they "almost won", teasing them into playing more often.

This practice of showing combinations that are similar to winning combinations more frequently than would occur randomly is called "near-miss" programming. It has been ruled illegal in the U.S. states of Nevada and New Jersey. The Nevada Gaming Commission did review some machines with this type of programming and refused to authorize them.

There is a related phenomenon that is also sometimes called "near-miss". The chance of a winning combination appearing on a payline is controlled by the winning percentages

programmed into the slot machine. However, the combinations appearing above and below the payline are all roughly equally randomly distributed. This means it is much more likely that a "winning combination" will appear above or below a payline than on the payline. Using the same example above, it is much more likely that a "winning combination" of "7-7-7" would appear on a line above or below the payline than the chance that it would appear on the payline.

The issue of a near-miss above or below the payline was also investigated by the Nevada Gaming Commission. They ruled that this was legal, so long as the "near-miss" above or below the payline was not specially programmed. In other words, the "near-miss" must be just as likely to occur as any other combination. The machine cannot be specially programmed to show "winning combinations" more frequently than other combinations above or below the payline. [2]

## **Regional Variations**

### **United States**

In the United States, the public and private availability of slot machines is highly regulated by state governments. Many states have established gaming control boards to regulate the possession and use of slot machines. Nevada is the only state that has no significant restrictions against slot machines both for public and private use. In New Jersey, slot machines are only allowed in hotel-casinos operated in Atlantic City. Several states (Illinois, Indiana, Iowa, Louisiana, Mississippi, and Missouri) allow slot machines (as well as any casino-style gambling) only on licensed riverboats or permanently anchored barges. For a list of state by state regulations on private slot machine ownership, see U.S. state slot machine ownership regulations.

### **Native American casinos**

Native American casinos located in reservations are not permitted to have slot machines unless the tribe first reaches a pact with the state in which it is located (per Indian Gaming Regulatory Act). Typically, a pact entitles the state to receive a percentage of the gross revenue from slot machines.



## **Slot machine classes**

Some states have restrictions on the type (called "class") of slot machines that can be used in a casino or other gaming area. "Class III" (or "traditional") slot machines operate independently from a centralized computer system and a player's chance of winning any payout is the same with every play. Class III slots are most often seen in Nevada or Atlantic City and are sometimes referred to as "Vegas-style slots".

"Class II" slot machines (also known as "Video Lottery Terminals" or "VLTs") are connected to a centralized computer system that determines the outcome of each wager. In this way, Class II slot machines mimic scratch-off lottery tickets in that each machine has an equal chance of winning a series of limited prizes. Either class of slot machines may or may not have a player skill element.

Some Class II game characteristics 1) The player is playing against other players and competing for a common prize. 2) There is certain to be a winner in each game. The game continues until there is a winner. 3) In a given set there are a certain number of wins and loses. Once a certain combination has happened it cannot happen again until a new batch is initiated. This is most obvious in scratch card games that come in a pack. Once a card has been pulled those winning combinations cannot occur again until a new pack of cards is installed. One game is dependent on previous games. 4) The player must be an active participant. They must recognize events as they occur and must recognize when they have won and announce their winning. Bingo is an excellent example here. 5) All players play from the same set of numbers as they are announced.

Some Class III game characteristics 1) The player is playing against the house. 2) There is a very real possibility that the player may lose the game. 3) Each game is independent of previous games. Any possible outcome can occur in any game. 4) Wins are announced automatically.

In general a game must have all characteristics of a Class II game to be a Class II game. Any characteristic of a Class III game makes it a Class III game. The casino pays a fee to the state for each Class III game and can only purchase so many Class III licenses. There is no such restriction for Class II games. Class II games are not so nearly regulated by the state.

## **Slot clubs**

Many American casinos offer free memberships in "slot clubs", which return a small percentage of the amount of money that is bet in the form of "comps" (complimentary food, drinks, hotel rooms, or merchandise), or sometimes as cash back (sometimes with a restriction that the cash be redeemed at a later date). These clubs require that players use a card that is inserted into the slot machine, to allow the casino to track the player's "action" (how much the player bets and for how long), which is often used to establish a level of play that may make a player eligible for additional comps. Comps or cash back from these clubs can make a significant difference in the maximum theoretical return when playing slot machines over a long period of time.

## Australia

Generally referred to as *poker machines* or *pokies*, but officially known as 'Gaming Machines', Australia has one of the highest concentration of poker machines per head of population in the world, with changes in regulations leading to a profusion of poker machine venues across the country. Various objectors, including many branches of the clergy and also charities for the poor, have criticized the spread of the machines, as they claim that it has led to a huge rise in the levels of "problem gambling" - gambling to a level that causes financial and social stress to the gambler and their families, as well as the general levels of gambling.

Australian-style poker machines use video displays to simulate (usually) five physical reels. These machines also have additional bonusing and second-screen features such as free games and bonus levels. They also allow for multiple lines (up to 50) or multiple ways (up to 243 ways) to be played. This higher level of complexity has meant that greater revenues can be obtained by operators, but also that the potential for problem gambling to develop is increased.

Poker machines are found in casinos (approximately one in each major city) as well as pubs and clubs (usually sports, social, or RSL clubs). This greater accessibility is also seen as a potential contributor to problem gambling.

The first Australian state to legalize this style of gambling was New South Wales in 1956 when they were made legal in all registered clubs in the state.

Laws governing gambling in Australia are controlled at the state level and as such, they vary from state to state. In the state of Queensland gaming machines in pubs and clubs must provide a return rate of 60% while machines located in casinos must provide a return rate of 90%.

## United Kingdom

Slot machines are usually known as *fruit machines* and *AWP* (Amusement with Prizes) in Britain. Fruit machines are commonly found in pubs, clubs, arcades, and some take-away food shops. These machines commonly have 3 or 6 reels with around 16 or 24 fruit symbols printed around them. These reels are spun, and if certain combinations of fruit appear, winnings are paid from the machine, or subgames are played. These are very similar to slot machines seen in casinos and elsewhere around the world, but the term "fruit machine" is usually applied to a type of machine more commonly found in pubs and arcades. These games have lots of extra features, trails and subgames with opportunities to win money, usually more than can be won from just the reels. However, the jackpots from these fruit machines are strictly limited.

Currently in the UK, the cost of an individual game may not exceed 50p. The maximum payout for a individual game depends on the type and the location of the machine, but is typically £25 in pubs where people under the age of 18 are not allowed entry. It is known for machines to payout multiple jackpots, one after the other (this is known as a *streak*) but each jackpot requires a new game to be played so as not to circumvent the maximum payout. The minimum payout percentage is 70% in Britain, with pubs often setting the payout at around

78%. Private members clubs are allowed "club machines", which have higher jackpots and are allowed to charge more per game.

These machines also operate in a different fashion to American slot machines; whereas slots are programmed to pay a percentage over the long-run, there is no reason why a jackpot cannot be paid straight after one has already been won - this is because over the long-run the percentage payout will be the same. However, in the UK, a fruit machine takes on an amount above its payout percentage before winning, so if a payout is 95%, a machine will make the player lose £10 before paying out £9.50. As such, it is sensible to watch for people playing these machines but not winning as the likelihood of a win increases. This, however, is called *Sharking*.

This type of fruit machine is popular across Europe (in the countries where they are legal), and very popular in countries such as the Czech Republic, Russia, and Ukraine.

It has been alleged by the Fairplay campaign that UK fruit machines employ fraudulent techniques in which gambles and chances which appear to be random are in fact pre-determined and cannot be affected by player choices. 1

...at this point, you'll have gambled the win up to £25. However, the machine doesn't want you to gamble any further. If from the 5 you select "High", the machine will spin in a 3 and you'll lose. If, on the other hand, you select "Low", the machine will spin in a 9 and you'll lose...

The claims centre around the emulation of fruit machine hardware on computers, which allow for the machines RAM state to be saved at a particular point and replayed making a different choice. The fruit machine industry has hit back at the allegations. Currently the issue has supposedly been considered by the UK Gaming Board (now the Gambling Commission) and warning notices and possibly modifications are to be put in place, though it is unclear as to whether this has happened. This is in fact the law now in the UK and all machines carry a warning notice informing the user that the machine may at times offer the player a choice in which they have no possible chance to win.

## **Japan**

Japan has a relatively new involvement in slot machines, roughly since after the American occupation during the World War II era. Most machines can be found in Pachinko parlors and the adult sections of amusement arcades, known as game centers.

The machines are regulated with IC chips, and has six different levels changing the odds of a "777". The levels provide a rough outcome of between 90% to an astonishing 160% (200% if using skills). Indeed, the Japanese slot machines are "beatable".

Despite the many varieties of the machines, there are certain rules and regulations put forward by a commission. For example, there must be three reels. Also, all reels must be accompanied by buttons which stop these reels, etc.

## **Common misunderstandings**

### **"Hot" and "Cold" machines**

Standard slot machines do not get "hot" or "cold". The odds of hitting a winning combination are determined by a random number generator contained in the machine's software and is exactly the same with every spin. Such slot machines are never "due to be hit" if they haven't paid out a jackpot in a while. (Exception: UK-style AWP machines are *progressive* which means chances of winning will increase over time if the machine has not paid any wins out. Many also "force" wins on players in order to meet the payout percentage).

### **Placement**

There is a science to the placement of slot machines on the gaming floor, but the highest paying machines are not necessarily placed in high-traffic areas. Typically, machines of similar payback percentages are grouped together, with 1% or less difference from machine to machine in the group.

### **Payout changes**

- In most jurisdictions, casinos cannot alter the machine's payout percentage by time of day, day of week, or remotely via a computer.
- Using a slot club card does not affect the machine's payout percentage. The card just allows the casino to keep track of the amount wagered by a player and issue complimentaries accordingly.

### **Missed opportunities**

- You leave a machine. Another player comes up and immediately hits a jackpot. You think, "If I had played just one more time, I would have won that jackpot."
- A machine returns a higher jackpot for playing more coins. You play fewer coins, and a winning combination appears. You think, "If I had played more coins, I would have won more money."

In both cases, you did not "miss" an opportunity to win. The results of modern slot machines depend on exactly when you play them. It is very unlikely in either case that you would have received the same result if you had played just one more time or just one more coin. See Random Number Generator above.

## Addiction

- Slot machines, like other gambling devices and games, can be addictive to some individuals.

## Trivia

- The first Liberty Bell slot machine can be found at the Liberty Belle Saloon & Restaurant on 4250 S. Virginia, Reno, Nevada. Brothers Marshall and Frank Fey opened the restaurant Nov. 20, 1958. The Fey's grandfather, Charles Fey, invented the first three-wheeled slot machine, and the restaurant has a collection of more than 200 antique machines. The Liberty Belle closed on March 17, 2006 and the location was recently purchased by the Reno-Sparks Convention Center which is located nearby.

On July 8, 2006, the Liberty Belle's slot machine collection will be auctioned off at the Reno-Sparks Convention Center.

- The first MegaJackpot system was introduced by International Game Technology in 1986. It is known as a Wide Area Progressive system.

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## See also

- Progressive jackpot
- Video poker
- Video Lottery Terminal
- Quiz machine
- Pachinko

# Pachinko

*Pachinko* (パチンコ) is a device used for amusement and prizes and is related to pinball machines. Although originally strictly mechanical, modern pachinko machines are a cross between a pinball machine and a video slot machine. Pachinko is said to have been invented sometime after World War II in Nagoya, though the date is sometimes questioned. The machines are widespread in Japan in establishments called "pachinko parlors", which also often feature a small number of slot machines.

The player purchases a large number of small steel balls which are inserted, in bulk, into the machine. Originally, machines had a spring-loaded lever for shooting the balls individually, but modern machines use a round "throttle" that merely controls how quickly an electrically fired plunger shoots the balls onto the playfield. The balls then drop through an array of pins, and usually simply fall through to the bottom, but occasionally fall into certain gates which make the machine pay out more balls.

Most current machines include a slot machine (these are called "pachi-slo"), and the big winnings are ultimately paid not from the balls falling into gates, but from the slot machine matches that follow. In fact, in many modern machines the balls have nothing to do with determining winnings, which are based strictly on electronic random number generators.

The winnings are in the form of more balls, which the player may either use to keep playing, or exchange for tokens or prizes such as pens or cigarette lighters. Under Japanese law, cash cannot be paid out, but there is virtually always a small exchange centre located nearby (or sometimes in a separate room from the game parlor itself) where players can conveniently exchange tokens or prizes for cash. Such pseudo-cash gambling is theoretically illegal, but from the sheer number of pachinko parlors in Japan, it is clear that the activity is at least tacitly tolerated by the authorities. (In fact, no pachinko parlor without a cash payout window has ever been documented.)

As a quasi-gambling activity, pachinko is widely held to have links to organized crime (specifically the yakuza). (There have also been rumors of links to the government of North Korea, which is thereby allegedly able to siphon funds from the sizeable population of Pyongyang-aligned ethnic Korean residents of Japan, but this seems an implausible and potentially racially motivated myth.)

Pachinko parlors share the reputation of slot machine dens and casinos the world over—garish decoration, over-the-top architecture, the smell of tobacco, the constant din of the machines, and players entranced for hours in their games.

**Categories:** Slot machines

# Progressive jackpot

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A *progressive jackpot* is a jackpot (highest payoff) for a gaming machine (usually a slot machine or video poker machine) where the value of the jackpot increases a small amount for every game played. Normally multiple machines are "linked" together to form one large progressive jackpot that grows more quickly because multiple players are contributing to the jackpot at the same time.

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- 1 The progressive jackpot meter
- 2 Qualifying
- 3 The break-even point
- 4 Advantage play
- 5 Player's clubs
- 6 Other jackpot games
- 7 List of popular progressive games
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## The progressive jackpot meter

The amount of the jackpot is shown on a meter as a money value. Usually the jackpot can only be won by winning the combination with the highest payoff, e.g. a royal flush at a video poker game, or five of the most valuable symbols (lemons, cherries, alligators, etc) on a slot machine. Once a player wins the jackpot, the jackpot resets to a preset minimum level.

The amount on the jackpot progresses (increases) a small amount for every play on a connected machine. The amount that the jackpot advances by is set by the casino ("the house"). For example, on a machine whose house edge is 5%, a generous jackpot contribution might be 1% (one fifth of the expected profit). The house is prepared to contribute some of the profit of a jackpot linked machine because players are attracted by the:

- relative novelty of progressive jackpots (generally, only a small fraction of the house's gaming machines will be connected to a progressive jackpot)
- constantly changing meter, often displayed on large, fancy LED displays
- large amount of the jackpot, which eventually motivates more players to play the game.

## Qualifying

Usually only players who wager the maximum number of credits per play qualify to win the jackpot. All wagers, whether or not they're max credit bets, contribute to the jackpot though. As a result, a game which requires a 10 credit wager to qualify for the progressive jackpot will tend to have the progressive jackpot rise to higher levels (relative to its break-even level) than a game that requires only a 5 credit wager to qualify.

### **The break-even point**

In some games such as video poker, it is possible to compute an optimal playing strategy based on the frequency for each payoff versus the odds of hitting that payoff. Since the jackpot of a progressive video poker game is constantly growing, it eventually can reach a break-even point where the machine becomes a positive expectation bet for the player.

When the progressive jackpot is less than the break-even point, there is a negative expected value (house edge) for all players.

In the long run, with optimal strategy, a video poker player can make a profit, although the "long run" is generally longer than most people think. (Several tens of thousands of plays.)

It's worthwhile to note that a break-even point cannot normally be calculated on a slot machine game, because the payback percentage for the game is unknown to the player. The break-even point in video poker can be calculated because the payback percentage for the game is a function of the paybacks and odds of the poker hands, which is based on a 52 card deck.

### **Advantage play**

Advantage players who only play when the progressive jackpot provides them with a positive expectation situation still generate revenue for the casino. This is a unique situation where the player has an advantage over the house, yet the casino is still making a profit from the player. This situation occurs because the bulk of the progressive jackpot has been bought and paid for by the other players' contributions to the jackpot.

Savvy gamblers sometimes organize teams of players to play machines where the progressive jackpots generate a positive expectation situation. Such teams often displace ordinary players, making the machines unavailable just when they are at their most interesting. Team members will often have cell phones and work in shifts, calling another teammate to replace them when they're ready for a break. Some casinos have a policy of "no team play", and will eject players suspected of playing in such teams.



## Player's clubs

Most casinos offer slot clubs, which pay back a percentage of a gambler's wagers on their games in the form of cash rebates and other perks with a monetary value. Participating in a slot club can reduce the break-even point of a progressive jackpot game because of the value of the rebate on each wager.

## Other jackpot games

Progressive jackpots are not limited to slot machines and video poker. Poker games sometimes include a progressive bad beat jackpot. Caribbean stud poker is another casino game which often has a progressive jackpot available, and some online casinos offer progressive versions of blackjack, roulette, and other casino games.

## List of popular progressive games

- MegaJackpots
- Wheel of Fortune
- Megabucks
- Regis' Cash Club

## See also

- Gambling
- Slot machine
- Video poker
- 

**Categories:** Gambling terminology | Slot machines | Video poker

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## Quiz machine

A *quiz machine* is a type of slot machine in which the player must answer questions in addition to, or instead of, matching symbols. See also itbox. They are common in UK pubs, where they are often based on board games or game shows. In the UK these are "technically"

termed "Skill with prizes" (SWP) as opposed to normal slot machines which are termed "Amusement with prizes" (AWP).

In the UK the history of the quiz machine can be divided into three phases. In the first phase (1980s to 1995) the machines were dedicated to a single game, often based on a TV show, with the maximum prize being £5 for a 50p stake.

Between 1995 and 1999 the number of formats expanded greatly and most public houses hosted a unit.

From 1999 to the present day the trend has been to develop the 'multi-quiz machine', a single unit in which a wide range of games is available. Many machines now offer in excess of thirty games and the earlier six-game multi-quizzes have become obsolete.

A source of great frustration for quiz machine players is the programming of anti-payout scripts within the machine code. Thus in the Cluedo game, for example, the machine will ensure that the player never throws the requisite number on the automated (fixed) die. This legally dubious practice has proliferated to counter the success of professional quiz machine players who are adept at learning the majority of questions in the bank. Nonetheless, good players can gain a slight advantage over the machine using this method until a new question module is installed.

Well received quiz games such as 'Big Break', 'Guinness Book of Records' and 'London Underground', have been taken out of circulation in favour of other games like 'Matrix', 'Eyes Down', 'Goldenballs', and 'Total Film Quiz'.

There is currently a trend towards the hosting of non-quiz games alongside traditional quiz favourites. Such games include Word Up, Sum Up, Bookworm and Spot The Difference.

**Categories:** Slot machines

## Skill With Prizes

*Skill With Prizes* (SWP) machines are a subset of slot machines, in which the payout a player receives is dependent on a game of skill rather than just luck.

One common type of SWP game is the Quiz machine - where a player has to answer a number of trivia questions to win money.

There are other types, where a video game of some sort is played. Titles in this category include The Crystal Maze and Word Up.

**Categories:** Gambling | Slot machines

## US slot machine ownership regulations

Here is a list of potential restrictions and regulations on private ownership of slot machines in the United States on a state by state basis. Note that these regulations are subject to change without notice and are not fully guaranteed to be completely accurate.

State	Age of Machine	Legal Status
Alabama	Any machine	PROHIBITED
Alaska	Any machine	LEGAL
Arizona	Any machine	LEGAL
Arkansas	Any machine	LEGAL
California	25 years or older	
Colorado	Pre-1984	
Connecticut	Any Machine	PROHIBITED
Delaware	25 years or older	
District of Columbia	Pre-1952	
Florida	20 years or older	
Georgia	Pre-1950	
Hawaii	Any machine	PROHIBITED
Idaho	Pre-1950	
Illinois	25 years or older	
Indiana	Any machine	PROHIBITED
Iowa	25 years or older	
Kansas	Pre-1950	
Kentucky	Any machine	LEGAL
Louisiana	25 years or older	
Maine	Any machine	LEGAL
Maryland	25 years or older	
Massachusetts	30 years or older	
Michigan	25 years or older	
Minnesota	Any machine	LEGAL
Mississippi	25 years or older	
Missouri	30 years or older	
Montana	25 years or older	
Nebraska	Any machine	PROHIBITED
New Hampshire	25 years or older	
New Jersey	Pre-1941	
New Mexico	25 years or older	
New York	Pre-1941	
Nevada	Any machine	LEGAL
North Carolina	25 years or older	
North Dakota	25 years or older	
Ohio	Any machine	LEGAL
Oklahoma	25 years or older	
Oregon	Pre-1968	
Pennsylvania	Pre-1950	
Rhode Island	Any machine	LEGAL
South Carolina	Any machine	PROHIBITED
South Dakota	Pre-1941	
Tennessee	Any machine	PROHIBITED
Texas	Any machine	LEGAL

Utah	Any machine	LEGAL
Vermont	Pre-1954	
Virginia	Any machine	LEGAL
Washington	25 years or older	
West Virginia	Any machine	LEGAL
Wisconsin	25 years or older	
Wyoming	25 years or older	

**Categories:** Gambling regulation | Slot machines

# Video poker

*Video poker* is a casino game based on five-card draw poker. It is played on a computerized console which is a similar size to a slot machine.

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- 1 History
- 2 The Game
- 3 Regulation
- 4 Kinds of video poker
- 5 Full pay games
  - 5.1 Jacks or Better
  - 5.2 Deuces Wild
  - 5.3 Double Bonus
  - 5.4 Double Double Bonus
  - 5.5 Other positive expectation games
  - 5.6 Locating positive expectation games
- 6 Players' clubs
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## History

Video poker first became commercially viable when it became economical to combine a television-like monitor with a solid state central processing unit. The earliest models appeared at the same time as the first personal computers were produced, in the mid-1970s, although they were rather primitive by today's standards.

Video poker became more firmly established when SIRCOMA, which stood for Si Redd's Coin Machines, and which evolved over time to become International Game Technology introduced Draw Poker in 1979. Throughout the 1980s, video poker became increasingly popular in casinos, as people found the devices less intimidating than playing table games. Today, video poker enjoys a prominent place on the gaming floors of many casinos. The game is especially popular with Las Vegas locals, who tend to patronize locals casinos off the Las Vegas Strip. These local casinos often offer lower denomination machines or better odds.

## The Game

Game play begins by placing a bet of one or more credits, by inserting money (or in newer machines, a barcoded paper ticket with credit) into the machine, and then pressing a "Deal" button to draw cards. The player is then given an opportunity to keep or discard one or more of the cards in exchange for a new card drawn from the same virtual deck, after which the

machine evaluates the hand and offers a payout if the hand matches one of the winning hands in the posted pay schedule.

On a typical video poker machine, payouts start with a minimum hand of a pair of jacks. Pay schedules allocate the payout for hands based partially upon how rare they are, and also based upon the total theoretical return the game operator chooses to offer.

Some machines offer progressive jackpots for the royal flush, (and sometimes for other rare hands as well), thereby spurring players to both play more coins and to play more frequently.

## **Regulation**

Video poker machines operated in state-regulated jurisdictions are programmed to deal random card sequences. A series of cards is generated for each play; five dealt straight to the hand, the other five dealt in order if requested by player. This is based upon a Nevada regulation, adopted by most other states with a gaming authority, which requires dice and cards used in an electronic game to be as random as the real thing, within computational limits set by the gaming authority. Video poker machines are tested to ensure compliance with this requirement before they may be offered to the public. Video poker games in Nevada are required to simulate a 52 card deck (or a 53 card deck if using a joker).

It is unclear whether all video poker machines at Indian gaming establishments are subject to the same Nevada-style regulations, as Indian casinos are located on reservations that are sovereign to the tribe which holds the gaming license.

Newer versions of the software no longer deal out all 10 cards at once. They now deal out the first five cards, and then when the draw button is pressed, they generate a second set of cards based on the remaining 47 cards in the deck. This was done after players found a way to reverse engineer a random number generator's cycle from sample hands and were able to predict the hidden cards in advance.

## **Kinds of video poker**

Newer video poker machines may employ variants of the basic five-card draw. Typical variations include: Deuces Wild, where a two can serve as a wild card and a jackpot is paid for four deuces or a natural royal; pay schedule modification, where four aces with a five or smaller kicker pays an enhanced amount (these games usually have some adjective in the title such as "bonus", "double", or "triple"); and multi-play poker, where the player starts with a base hand of five cards, and each additional played hand draws from a different set of cards with the base hand removed. (Multi-play games are offered in "Triple Play", "Five Play", "Ten Play", "Fifty Play" and even "One Hundred Play" versions.)

In the non-wild games (games which do not have a wild card) a player who plays five or six hundred hands per hour, on average, may receive the rare four-of-a-kind approximately once per hour, while a player may play for many days or weeks before receiving an extremely rare royal flush.

## Full pay games

Full pay video poker machines are games which offer the typical maximum payback percentage for that game type. The payback percentage on a full pay game is typically close to and sometimes over 100% when played with perfect strategy. Full pay Jacks or Better, for example, offers a payback percentage of approximately 99.5% when played with perfect strategy.

Casinos often place full pay machines alongside other machines with pay schedules that offer less attractive payback percentages, leaving it up to the player to identify which video poker machines offer full pay schedules.

Most full pay machines are configured with a pay schedule that is only full pay when the maximum amount of credits is bet. (See the pay schedule tables later in this article for details.)

## Jacks or Better

"Jacks or Better" is the most common variation of video poker available. Payoffs begin at a pair of jacks or better. Full pay Jacks or Better is also known as 9/6 Jacks or Better; the 9 refers to the payoff for a full house and the 6 refers to the payoff for a flush. Full pay Jacks or Better has a theoretical return of 99.54% when played with perfect strategy.

Hand	1 credit	2 credits	3 credits	4 credits	5 credits
Royal Flush	250	500	750	1000	4000*
Straight Flush	50	100	150	200	250
Four of a kind	25	50	75	100	125
Full House	9	18	27	36	45
Flush	6	12	18	24	30
Straight	4	8	12	16	20
Three of a Kind	3	6	9	12	15
Two Pair	2	4	6	8	10
Jacks or Better	1	2	3	4	5
Theoretical Return	98.05%	98.05%	98.05%	98.05%%	99.54%*

- \*Notice the gap between the payoff for a Natural Royal Flush played with 4 credits vs. one with 5 credits. The payoff schedule for most video poker machines has a gap like this, such that players who do not play with the maximum number of credits at a time are playing with a negative theoretical return.

## Deuces Wild

"Deuces Wild" is a variation of video poker in which all two's are wild. (Wild cards substitute for any other card in the deck in order to make a better poker hand. In Deuces Wild, the payout for a four of a kind makes up approximately 1/3 of the payback percentage

of the game, and a four of a kind occurs on average once every 15 hands or so. Deuces Wild can be found with pay schedules that offer a theoretical return as high as 100.762%, when played with perfect strategy. It is also available with other pay schedules that have lesser theoretical returns:

Hand	1 credit	2 credits	3 credits	4 credits	5 credits
Natural Royal Flush	300	600	900	1200	4000*
Four Deuces	200	400	600	800	1000
Wild Royal Flush	25	50	75	100	125
Five of a Kind	15	30	45	60	75
Straight Flush	9	18	27	36	45
Four of a Kind	5	10	15	20	25
Full House	3	6	9	12	15
Flush	2	4	6	8	10
Straight	2	4	6	8	10
Three of a Kind	1	2	3	4	5
Theoretical Return	99.679%	99.679%	99.679%	99.679%	100.762%*

- \*Notice the gap between the payoff for a Natural Royal Flush played with 4 credits vs. one with 5 credits. The payoff schedule for most video poker machines has a gap like this, such that players who do not play with the maximum number of credits at a time are playing with a negative theoretical return.

## Double Bonus

"Double Bonus" video poker is a variation of Jacks or Better with a bonus payout for four aces. This variation offers up to a theoretical return of 100.1725%, when played with perfect strategy. It is also available with other pay schedules that have lesser theoretical returns:

Hand	1 credit	2 credits	3 credits	4 credits	5 credits
Royal Flush	250	500	750	1000	4000*
Straight Flush	50	100	150	200	250
Four Aces	160	320	480	640	800
Full House	10	20	30	40	50
Flush	7	14	21	28	35
Straight	5	10	15	20	25
Three of a Kind	3	6	9	12	15
Two Pair	1	2	3	4	5
Jacks or Better	1	2	3	4	5
Theoretical Return	99.1079%	99.1079%	99.1079%	99.1079%	100.1725%*

- \*Notice the gap between the payoff for a Royal Flush played with 4 credits vs. one with 5 credits. Players who do not play with the maximum number of credits at a time are playing with a negative theoretical return.

## Double Double Bonus



"Double Double Bonus" video poker is a variation of Jacks or Better which offers bonus payoffs for different four of a kinds, as seen in the payout table below. Full pay Double Double Bonus can be found with pay schedules that offer up to a theoretical return of 100.067%, when played with perfect strategy. It is also available with other pay schedules that have lesser theoretical returns:

Hand	1 credit	2 credits	3 credits	4 credits	5 credits
Royal Flush	250	500	750	1000	4000*
Straight Flush	50	100	150	200	250
Four Aces w/2, 3, or 4	400	800	1200	1600	2000
Four 2, 3, or 4 w/A-4	160	320	480	640	800
Four Aces	160	320	480	640	800
Four 2, 3, or 4	80	160	240	320	400
Four 5-K	50	100	150	200	250
Full House	10	20	30	40	50
Flush	6	12	18	24	30
Straight	4	8	12	16	20
Three of a Kind	3	6	9	12	15
Two Pair	1	2	3	4	5
Jacks or Better	1	2	3	4	5
Theoretical Return	98.9154%	98.9154%	98.9154%	98.9154%	100.067%*

- \*Notice the gap between the payoff for a Royal Flush played with 4 credits vs. one with 5 credits. Players who do not play with the maximum number of credits at a time are playing with a negative theoretical return.

## Other positive expectation games

Other kinds of video poker only have positive theoretical returns when the progressive jackpot is high enough. Many establishments advertise with a billboard when the progressive jackpot is high enough.

## Locating positive expectation games

Although positive expectation and full pay video poker machines are found in many "locals" casinos (located off the Strip) in the Las Vegas market (and in a few Reno casinos), most Strip casinos and casinos in other markets offer less attractive video poker pay schedules.

## Players' clubs

Many casinos offer free memberships in "player's clubs" or "slot clubs", which return a small percentage of the amount of money that is bet in the form of "comps" (complementary food, drinks, hotel rooms, or merchandise), or sometimes as cash back (sometimes with a restriction that the cash be redeemed at a later date). These clubs require that players use a card that is inserted into the video poker machine to allow the casino to track the player's "action" (how much the player bets and for how long), which is often used to establish a level of play that may make a player eligible for additional comps.

Comps or cash back from these clubs can make a significant difference in the theoretical return when playing video poker over a long period of time. In some cases, usage of a club card can even add enough value to the pay schedule of a video poker game with a negative theoretical return to make that same game have a positive theoretical return.

## See also

- List of video poker games
- Video Lottery Terminal
- Slot machine
- Progressive jackpot

## Ace invaders

*Ace Invaders* is a three line video poker game produced by International Gaming Technology. The game plays like other multi line video poker games except the bottom line is a Bonus Poker game, while the top two lines are both stud poker based games. The pay schedule for the Bonus Poker game on the bottom line offers a greater than 200% payout percentage (if one plays all three lines), but this is compensated for by the lower payout percentage on the stud poker games on the top two lines.

Another feature unique to the Ace Invaders game is the gameplay. The bottom line is dealt and played as a draw poker hand, just like in a standard Jacks or Better game, and the player chooses which cards to keep and discard. Then the game deals the replacement cards, but unlike other video poker games, Ace Invaders doesn't pay immediately. First the game checks the top line for a paying combination, then pays out for that. Then, if any of the cards in the top line are aces or would help create a royal flush in the second line, they drop down and become part of the hand on the second line. This process repeats itself on the second line, paying out, then checking to see if the cards would help complete a royal flush on the first line, and then drops those cards down again before finally paying out on the first line.

## See also

- List of video poker games
- 

Categories: Video poker

## List of video poker games

A list of video poker games:

- 100 Play Draw Poker
- 50 Play Poker
- 3 Way Action
- Ace Invaders
  - Ace\$ Bonus Poker
  - Aces and Eights
  - Acey Deucey Bonus Poker
  - All American
  - Anything's Wild
  - Black Jack Bonus Poker
  - Bonus Deuces
  - Bonus Poker
  - Bonus Poker Deluxe
  - Bonus Poker Plus
  - Deuces and Joker Wild
  - Deuces Wild
  - Double Aces and Faces
  - Double Bonus
  - Double Bonus Deuces Wild
  - Double Double Aces and Faces
  - Double Double Bonus
  - Double Double Bonus Poker Plus
  - Double Draw Aces
  - Double Joker Poker
  - Double Pay Poker
  - Draw 6 Poker
  - Face n' Deuces
  - Five Aces Poker
  - Flush Attack
  - Full House Bonus Poker
  - Going for Fours

- Jacks or Better
- Joker Wild
- Loose Deuces
- Lucky Suit Poker
- Max Out Poker
- Nevada Bonus
- One-Eyed Jacks
- Pay the Aces
- Pick 'em Poker
- Royal Aces Poker
- Sequential Royal
- Sevens Wild
- Shockwave
- Spin Poker
- Super Aces Bonus Poker
- Super Deuces Wild
- Super Double Bonus
- Super Double Double Bonus
- Super Times Pay
- Super Triple Bonus
- Tens or Better
- Triple Bonus
- Two-Way Royal
- Triple Double Bonus
- Ultra Bonus Poker
- White Hot Aces

Categories: Video poker

# Gambling variants

Baccarat | Biribi | Casino war | Dead pool | Fan-Tan | Handgame | Oicho-Kabu | Pai Gow | Panguingue | Trente et Quarante | Two-up

## Baccarat

*Baccarat* is a gambling card game. It is believed to have been introduced into France from Italy during the reign of Charles VIII of France (ruled 1483-1498), and it is similar to Faro and to Basset. There are three accepted variants of the game: baccarat chemin de fer (railway), baccarat banque (or a deux tableaux), and punto banco (or North American baccarat).

Baccarat (pronounced Back-a-rah) is a simple game with only three possible results - 'Player', 'Banker' and 'Tie'. The term 'Player' does not refer to the customer and the term 'Banker' does not refer to the house. They are just options on which the customer can bet.

Baccarat is an unusual game in that any score of 10 is worth 0 (or 'Baccarat'). The highest score that can be achieved is 9. Two picture cards would have a score of 0. A 9 and a 6 would not equal 15 but 5. (Minus the first digit) An ace counts as 1 and the rest of the cards retain their face value.

### Contents

- 1 Punto Banco (North American Baccarat)
- 2 Baccarat Chemin de Fer
- 3 Baccarat Banque
- 4 Trivia

### Punto Banco (North American Baccarat)

In the United States, Australia and Canada, a variation of baccarat is played in which the casino banks the game at all times. Punters may bet on either the player or the banker, which are merely designations for the two hands dealt in each game.

The cards are dealt, one to the 'Player' first then to the 'Banker', 'Player' then 'Banker' again. Each has two cards. This is the initial deal. Both cards in each hand are added together and the croupier calls the total. (e.g. five to the 'Player', three to the 'Banker') From this position the 'Tableau' or table of play is used to determine if further cards need to be drawn. A maximum of three cards per hand may be drawn to achieve a winning hand. *Therefore the object of the game is to bet on the hand with the highest total.*

The Tableau is as follows:

Pictures and 10s count as 0. If the initial deal has a hand totalling 8 or 9 no further cards are drawn.

- If the 'Player' has an initial total of 0, 1, 2, 3, 4 or 5, the 'Player' draws another card.
- If the 'Player' has an initial total of 6 or 7, the 'Player' stands and draws no further card.
- If the 'Player' has an initial total of 8 or 9, this is a natural and neither the 'Player' nor the 'Banker' draw further cards.
- If the 'Banker' has an initial total of 0, 1 or 2, the 'Banker' draws another card.
- If the 'Banker' has an initial total of 3, the 'Banker' draws another card when the 'Player's' third card is anything but an 8.
- If the 'Banker' has an initial total of 4, the 'Banker' draws another card when the 'Player's' third card is a 2, 3, 4, 5, 6 or 7.
- If the 'Banker' has an initial total of 5, the 'Banker' draws another card when the 'Player's' third card is a 4, 5, 6, or 7.
- If the 'Banker' has an initial total of 6, the 'Banker' draws another card when the 'Player's' third card is a 6 or 7.
- If the 'Banker' has an initial total of 7, the 'Banker' stands and draws no further cards.
- If the 'Banker' has an initial total of 8 or 9, this is a natural and neither the 'Player' nor the 'Banker' draw further cards.
- If the 'Banker' has an initial total of 0, 1, 2, 3, 4 or 5 and the 'Player' has an initial total of 6 or 7 and stands, the 'Banker' draws another card.
- The 'Banker' must stand on 6 when the 'Player' has a 6 or 7 on the initial deal.

The croupier will deal the cards according to the tableau and the croupier will announce the winning hand - either 'Player' or 'Banker'. Losing bets will be collected and the winning bets will be paid according to the rules of the house. Usually even money or 1-1 will be paid to the player and 95% to the 'Banker', 5% commission to the house. (Commission Baccarat) Some casinos pay even money or 1-1 to both 'Player' and 'Banker' except when the 'Banker' wins with a total of 6. Then the 'Banker' will be paid 50% or half the original bet.

Should both the 'Banker's' hand and the 'Player's' hand have the same value at the end of the deal the croupier shall announce "Egalite - tie bets win." All tie bets will be paid at the odds of 8-1 and the croupier shall not touch the bets on either 'Player' or 'Banker'.

The traditional form of punto banco baccarat is played at an oval table, similar to the chemin de fer version. The table is staffed by a croupier, who directs the play of the game, and two dealers who collect and pay bets as well as tallying commissions due. Six or eight decks of cards are used, normally shuffled only by the croupier and dealers. Like chemin de fer, the shoe is passed around from player to player, who acts as the dealer of the cards and as "banker," but he or she does not actually bank the game. Indeed, the "banker" may bet on the player hand if he or she wishes, or may pass the shoe along to another player — the role of the "banker" is merely ceremonial. The person who bet the highest amount on the player hand is given the player-hand cards, though he or she simply turns the cards over, announcing

their total. The croupier instructs the "banker" on if or when to deal third cards, and then announces the winning hand.

In casinos in Las Vegas and Atlantic City, this version of baccarat is usually played in special rooms separated from the main gaming floor, ostensibly to provide an extra measure of privacy and security because of the high stakes often involved. The game is frequented by the highest of high rollers, who may wager tens or hundreds of thousands of dollars on a single hand. Australian tycoon Kerry Packer was particularly fond of the game, having won and lost large sums over the years. Minimum bets are relatively high, often starting at 25 USD and going as high as 500 USD. Posted maximum bets are often arranged to suit a player, but maximums of 10,000 USD per hand are common

Despite its simplicity (or perhaps because of it), the punto banco version of baccarat offers some of the lowest house advantage available in a casino. The player bet has a house advantage of 1.24%, and the banker bet (despite the 5% commission) has an advantage of 1.06%. The tie bet has a much higher house advantage of 14.44%, based on six decks in play. [1]

Because of its attraction for wealthy players, a casino may win or lose millions of dollars a night on the game, and the house's fortunes may even affect the bottom line of a corporation's quarterly profit and loss — notations of the effects of major baccarat wins and losses are frequent in the quarterly reports of publicly-traded gaming companies.

*Mini-baccarat* is essentially the same game, but played at a smaller table very similar to a blackjack table. A single dealer handles the entire game, including dealing the cards. The pace is usually much faster than the "big baccarat" version. Betting minimums and maximums are usually lower. In casinos outside of Las Vegas and Atlantic City, this is frequently the only version of baccarat that is offered.

## **Baccarat Chemin de Fer**

Six full packs of cards of the same pattern are used, shuffled together. The players seat themselves round the table. In the centre is a basket for the reception of the used cards. If there is any question as to the relative positions of the players, it is decided by lot. The person who draws the first place seats himself next on the right hand of the croupier, and the rest follow in succession.

The croupier shuffles the cards, and then passes them on, each player having the right to shuffle in turn. When they have made the circuit of the table, the croupier again shuffles, and, having done so, offers the cards to the player on his left, who cuts. The croupier places the cards before him, and, taking a manageable quantity from the top, hands it to the player on his right, who for the time being is dealer, or "banker." The other players are punters.

The dealer places before him the amount he is disposed to risk, and the players "make their stakes." Any punter, beginning with the player on the immediate right of the dealer, is entitled to say "Banco", meaning to "go bank," to play against the whole of the banker's stake. If no one does so, each player places his stake before him. If the total so staked by the seated players is not equal to the amount for the time being in the bank, other persons standing round may stake in addition. If it is more than equal to the amount in the bank, the punters

nearest in order to the banker have the preference up to such amount, the banker having the right to decline any stake in excess of that limit.

The banker proceeds to deal four cards face downwards: the first, for the punters, to the right; the second to himself; the third for the punters, the fourth to himself. The player who has the highest stake represents the punters. If two punters are equal in this respect, the player first in rotation has the preference. Each then looks at his cards. If he finds that they make either nine, the highest point at Baccarat, or eight, the next highest, he turns them up, announcing the number aloud, and the hand is at an end. If the banker's point is the better, the stakes of the punter become the property of the bank. If the punters' point is the better, the banker (or the croupier for him) pays each punter the amount of his stake.

The stakes are made afresh, and the game proceeds. If the banker has been the winner, he deals again. If otherwise, the cards are passed to the player next in order, who thereupon becomes banker in his turn.

If neither party turns up his cards, this is an admission that neither has eight or nine. In this case the banker is bound to offer a third card. If the point of the punter is baccarat (i.e. cards together amounting to ten or twenty, = 0), one, two, three, or four, he accepts as a matter of course, replying, "Yes," or "Card." A third card is then given to him, face upwards. If his point is already six or seven, he will, equally as a matter of course, REFUSE the offered card. To accept a card with six or seven, or refuse with baccarat, one, two, three, or four (known in either case as a "false draw"), is a breach of the established procedure of the game, and brings down upon the head of the offender the wrath of his fellow-punters; indeed, in some circles he is made liable for any loss they may incur thereby, and in others is punishable by a fine. At the point of five, and no other, is it optional to the punter whether to take a card or not; nobody has the right to advise him, or to remark upon his decision.

The banker has now to decide whether he himself will draw a card, being guided in his decision partly by the cards he already holds, partly by the card (if any) drawn by the punter, and partly by what he may know or guess of the latter's mode of play. If he has hesitated over his decision, the banker may be pretty certain (unless such hesitation was an intentional blind) that his original point was five, and as the third card (if any) is exposed, his present point becomes equally a matter of certainty. The banker, having drawn or not drawn, as he may elect, exposes his cards, and receives or pays as the case may be. Ties neither win nor lose, but the stakes remain for the next hand.

The banker is not permitted to withdraw any part of his winnings, which go to increase the amount in the bank. Should he at any given moment, desire to retire, he says, "I pass the deal." In such case each of the other players, in rotation, has the option of taking it, but he must start the bank with the same amount at which it stood when the last banker retired. Should no one present care to risk that high a figure, the deal passes to the player next on the right hand of the retiring banker, who is in such case at liberty to start the bank with such amount as he thinks fit, the late banker now being regarded as last in order of rotation, though the respective priorities are not otherwise affected.

A player who has "gone bank," and lost, is entitled to do so again on the next hand, notwithstanding that the deal may have "passed" to another player.

When the first supply of cards is exhausted, the croupier takes a fresh handful from the heap before him, has them cut by the player on his left, and hands them to the banker. To constitute a valid deal, there must be not less than seven cards left in the dealer's hand.



Should the cards in hand fall below this number, they are thrown into the wastebasket, and the banker takes a fresh supply as above mentioned.

## **Baccarat Banque**

In Baccarat Chemin de Fer, it will have been noticed that a given bank only continues so long as the banker wins. So soon as he loses, it passes to another player. In Baccarat Banque the position of banker is much more permanent. Three packs of cards are shuffled together. (The number is not absolute, sometimes four packs, sometimes two only, being used; but three is the more usual number.) The banker (unless he retires either of his own free will or by reason of the exhaustion of his finances) holds office until all these cards have been dealt.

The bank is at the outset put up to auction, i.e. belongs to the player who will undertake to risk the largest amount. In some circles, the person who has first set down his name on the list of players has the right to hold the first bank, risking such amount as he may think proper.

The right to begin having been ascertained, the banker takes his place midway down one of the sides of an oval table, the croupier facing him, with the waste-basket between. On either side the banker are the punters (ten such constituting a full table). Any other persons desiring to take part remain standing, and can only play in the event of the amount in the bank for the time being not being covered by the seated players.

The croupier, having shuffled the cards, hands them for the same purpose to the players to the right and left of him, the banker being entitled to shuffle them last, and to select the person by whom they shall be cut. Each punter having made his stake, the banker deals three cards, the first to the player on his right, the second to the player on his left, and the third to himself; then three more in like manner. The five punters on the right (and any bystanders staking with them) win or lose by the cards dealt to that side; the five others by the cards dealt to the left side. The rules as to turning up with eight or nine, offering and accepting cards, and so on, are the same as at Baccarat Chemin de Fer.

Each punter continues to hold the cards for his side so long as he wins. If he loses, the next hand is dealt to the player next following him in rotation.

Any player may "go bank," the first claim to do so belonging to the punter immediately on the right of the banker; the next to the player on his left, and so on alternatively in regular order. If two players on opposite sides desire to "go bank," they go half shares.

A player going bank may either do so on a single hand, in the ordinary course, or a cheval, i.e. on two hands separately, one-half of the stake being played upon each hand. A player going bank and losing may, again go bank; and if he again loses, may go bank a third time, but not further.

A player undertaking to hold the bank must play out one hand, but may retire at anytime afterwards. On retiring, he is bound to state the amount with which he retires. It is then open to any other player (in order of rotation) to continue the bank, starting with the same amount, and dealing from the remainder of the pack, used by his predecessor. The outgoing banker takes the place previously occupied by his successor.

The breaking of the bank does not deprive the banker of the right to continue, provided that he has funds with which to replenish it, up to the agreed minimum.

Should the stakes of the punters exceed the amount for, the time being in the bank, the banker is not responsible for the amount of such excess. In the event of his losing, the croupier pays the punters in order of rotation, so far as the funds in the bank will extend; beyond this, they have no claim. The banker, may, however, in such a case, instead of resting on his right, declare the stakes accepted, forthwith putting up the needful funds to meet them. In such event the bank thenceforth becomes unlimited, and the banker must hold all stakes (to whatever amount) offered on any subsequent hand, or give up the bank.

The laws of baccarat are complicated and no one code is accepted as authoritative, the different clubs making their own rules.

## Trivia

- Chemin de Fer is the game of choice by Ian Fleming's secret agent, James Bond 007. He can be seen playing the game in numerous films and novels, including, most notably, the novel *Casino Royale* where Bond is tasked with bankrupting a SMERSH agent by defeating him at a table of Chemin de Fer.

**Categories:** Gambling variants

## Biribi

*Biribi*, or *cavagnole*, a French game of chance, prohibited by law since 1837. It is played on a board on which the numbers 1 to 70 are marked. The players put their stakes on the numbers they wish to back. The banker is provided with a bag from which he draws a case containing a ticket, the tickets corresponding with the numbers on the board. The banker calls out the number, and the player who has backed it receives sixty-four times his stake; the other stakes go to the banker. In the French army "to be sent to Biribi" is a cant term for being sent to the disciplinary battalion in Algeria.

## References

- This article incorporates text from the Encyclopædia Britannica Eleventh Edition, a publication now in the public domain.

**Categories:** Gamblings | Gambling variants

## Casino war

*Casino war* is a casino card game based on the children's game of War. The game is arguably one of the most easily understood casino card games, but it also has a relatively large house edge compared to other games.

The game is normally played with six standard 52 card decks. The cards are ranked in the same way that cards in poker games are ranked, except that aces are always high.

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- 2 Ties
- 3 Going to war
- 4 House advantage
- 5 Strategy
- 6 References

## The deal

After the player has placed a bet, the dealer and the player are each dealt one card.

- If the player's card is ranked higher than the dealer's, the player wins even money.
- If the dealer's card is ranked higher than the player's, the player loses the bet to the house.

## Ties

A tie occurs when the dealer and the player each have cards of the same rank. In a tie situation, the player has two options:

- The player can surrender, in which case the player loses half the bet.
- The player can go to war, in which case the player must place an additional wager the same size as the first wager.

## Going to war

If the player goes to war, the dealer burns three cards before dealing each of them an additional card. If the player's card is ranked higher than or the same as the dealer's, then the player wins an amount equal to the size of the original bet only. If the dealer's card is ranked higher than the player's, the player loses both the original bet and the "going to war" bet.

## House advantage

The dealer and the player each have a 50% chance of winning, so this seems like an even money game. The house advantage, however, comes from what happens in the case of a tie.

Some casinos offer a bonus payout in the event of a tie after going to war.

The house advantage increases with the number of decks in play and decreases in casinos who offer a bonus payout. The house advantage for this game is over 2%.

## Strategy

Surrendering has a slightly higher advantage for the house, so a player should never surrender.

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**Categories:** Gambling variants

## Dead pool

A *dead pool*, or *deathpool* is a game of prediction which involves guessing when someone will die. Sometimes it is a bet where money is involved. The combination of *dead* or *death* and betting-*pool*, refers to such a gambling arrangement. A typical modern dead pool might have players pick out celebrities who they think will die within the year. There are several scoring variants. For example, a player might be rewarded few, if any, points for predicting the death of someone who is over 80 years old or is suffering from a terminal disease. Other pools require participants to form a list ranked on how sure they are that a person on the list will die, with points given based on how high a person on their list is ranked, and others award points based on how many other contestants selected the deceased celebrity. Another variant on the game has a single point awarded for each correct prediction, regardless of the celebrity's age or medical condition. The advantage of this scoring method is that there is more scoring, and it rewards research (learning which celebrities are experiencing failing health) rather than luck.

One example of the concept is a series of segments on the Howard Stern Radio Show, where show regulars would place bets into a celebrity death pool, each trying to predict the next celebrity to pass on. The practice has been expanded to include wagering on such abstract entities as businesses.

Definitions of celebrity vary from contest to contest. Smaller pools may rely on consensus of the players as to who is famous. Others require an obituary to appear in a recognized newswire such as the Associated Press or Reuters. The Lee Atwater Invitational employed a

Fame Committee consisting of non-contestants who assess ahead of time the name-recognition of each celebrity. The Rotten.com Dead Pool, the largest in the world, uses NNDB as its source of qualified celebrities, and as arbiter of their life status.

The concept and success strategies are also detailed in an annual guide called "The Dead Pool", written by KQRS radio personality Mike Gelfand and author Mike Wilkinson. KQRS also does an annual on air dead pool contest, similar to Stern's, where show hosts and listners will attempt to pick which celebrity will die in that calendar year.

In most pools, killing the celebrity in question is considered cheating and results in the killer's immediate disqualification from the pool. Such a dead pool was depicted in the aptly-titled Clint Eastwood movie, The Dead Pool.

Death List is unlike a traditional dead pool as there are no competitors involved and no points are awarded. The names on the list are chosen by a committee, members of Death List then track the well-being of the chosen celebrities over the course of the year. The Death List was first conceived in a student bar on November 29th 1986, the inspiration being the death of Cary Grant earlier the same day. The list's aim is to predict which people in the public eye will die in the following year. Ever since 1987, a list has been drawn up, but starting in 1994 the Death List has consisted of 50 prominent people chosen annually by the committee, who might merit a prominent obituary in the UK media -- ranging from politicians, religious figures and show business stars.

The Dead Pool is also an arena in the Mortal Kombat series only being featured in Mortal Kombat II and Mortal Kombat: Deception. The stage itself is a pit surrounded with acid. On Mortal Kombat II, you had to wait for the "Finish Him/Her"" screen, then you could knock your opponent in the acid, and it would count as a Fatality. On Mortal Kombat Deception, you could just knock your opponent in the acid with a single powerful strike.

**Categories:** Gambling variants

## Fan-Tan

*Fan-Tan*, or *fantan* (Simplified Chinese: 骰; Traditional Chinese: 骰; pinyin: fntn) is a form of gambling long played in China and among Chinese immigrants to America and other countries.

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- 1 History
- 2 The game
- 3 The Card Game Fantan
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## History

Fan-tan is no longer as popular as it once was, having been replaced by modern casino games, and other traditional Chinese games such as Mah Jong and Pai Gow. However, it was

once a favorite pastime of the Chinese in America. Jacob Riis, in his famous book about the underbelly of New York, *How the Other Half Lives* (1890), wrote of entering a Chinatown fan-tan parlor: "At the first foot-fall of leather soles on the steps the hum of talk ceases, and the group of celestials, crouching over their game of fan tan, stop playing and watch the comer with ugly looks. Fan tan is their ruling passion."

San Francisco's large Chinatown was also home to dozens of fan-tan houses in the 19th century. The city's former police commissioner Jesse B. Cook wrote that in 1889 Chinatown had 50 fan-tan games, and that "in the 50 fan tan gambling houses the tables numbered from one to 24, according to the size of the room."

Fan-tan is still played at Macau casinos, where play goes on day and night, every day of the week, and bets can be made from 5 cents to 500 dollars.

## **The game**

The game is simple. A square is marked in the centre of an ordinary table, or a square piece of metal is laid on it, the sides being marked 1, 2, 3 and 4. The banker puts on the table a double handful of small buttons, beads, coins, dried beans, or similar articles, which he covers with a metal bowl, or "tan koi".

The players then bet on the numbers, setting their stakes on the side of the square which bears the number selected. (Players can also bet on the corners, for example between No. 2 and No. 3). When all bets are placed, the bowl is removed, and the "tan kun" or croupier uses a small bamboo stick to remove the buttons from the heap, four at a time, until the final batch is reached. If it contains four buttons, the backer of No. 4 wins; if three, the backer of No. 3 wins, and so on.

A 25% commission is deducted from the stake by the banker, and the winner receives five times the amount of his stake thus reduced.

## **The Card Game Fantan**

Fantan is also the name of a card game, played with an ordinary pack, by any number of players up to eight. The deal decided, the cards are dealt singly, any that are left over forming a stock, and being placed face downwards on the table. Each player contributes a fixed stake or ante. The first player can enter if he has an ace; if he has not he pays an ante and takes a card from the stock; the second player is then called upon and acts similarly till an ace is played. This (and the other aces when played) is put face upwards on the table, and the piles are built up from the ace to the king. The pool goes to the player who first gets rid of all his cards. If a player fails to play, having a playable card, he is fined the amount of the ante for every card in the other players hands.

The card game Sevens is also sometimes called 'Fan Tan'

## **References**

- This article incorporates text from the Encyclopædia Britannica Eleventh Edition, a publication now in the public domain.

**Categories:** Gambling variants

## Handgame

*Handgame*, also known as *stickgame*, is a Native American guessing game.

### Rules

Stickgame is played with a pair of bones, one white and one black or striped; and ten "point sticks," which are used as counters. The two teams, one "defending" and one "guessing," sit opposite one another; two members of the "defending" team take the bones and hide them under their hands while the others sing, drum, and attempt to distract the "guessing" team. The leader of the "guessing" team then must guess which defender is holding each of the two bones; for each incorrect guess, his team must turn over one stick to the defenders. Once the bones have been located, the teams reverse roles, and the game continues in this manner until one team holds all the sticks.

### History

Handgame apparently originated with the Northern Paiute and Western Shoshone tribes of the Great Basin. Historical documentation states that games were once played for land use and female companions, and later on for horses and cattle. Today, handgame is played during traditional gatherings, powwows, and tribal celebrations. More recent versions of handgame played by tribes in the Northwest added an eleventh stick, or "kickstick"; this variation was promulgated by the Paiute medicine man Wovoka when he traveled to the Northwest to teach the Ghost Dance. Handgame bones and point sticks have been identified in ancient anthropological digs. Handgame continues to spread amongst Native American tribes; the Indian Gaming Regulatory Act classified it as Class I gaming, leaving its regulation to individual tribes.

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**Categories:** Gambling variants

## Oicho-Kabu

*Oicho-Kabu* is a traditional Japanese gambling game similar to the Western games blackjack and baccarat. It is typically played with special kabufuda cards. A hanafuda deck can also be used, if the last two months are discarded. (Western playing cards can be used, if the face cards are removed from the deck and aces counted as 1.)

The goal of the game is to reach a total closest to 9 without going over. As in baccarat, the last digit of any total over 10 makes your hand: a 15 counts as 5, a 12 as 2, and a 20 as 0.

The word yakuza originates from this game. The worst Oicho-Kabu hand is 8-9-3, or "ya-ku-sa". This gives a sum total of 20, or 0 points.

**Categories:** Gambling | Gambling variants

## Pai Gow

*Pai Gow* (Chinese: 牌九; pinyin: páijiǔ, Cantonese: paai4 gau2) is a Chinese gambling game. It is played with the Chinese dominoes tile set. The game is played in underground casinos in most Chinese communities. It is played openly in major casinos in Macau, China, Las Vegas, Nevada, Atlantic City, New Jersey, in many California cardrooms, and in some Australian casinos. It is an ancient game, thousands of years old, and steeped in tradition.

The name "Pai Gow" is sometimes used to refer to a card game called Pai Gow Poker (or Double Hand Poker ), also popular in Nevada, California and casinos in Detroit, MI. It is loosely based on the Chinese game.

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- 1 Rules
  - 1.1 The set-up
  - 1.2 Basic scoring
  - 1.3 Gongs and Wongs
  - 1.4 The Gee Joon tiles
  - 1.5 Pairs
  - 1.6 Ties
- 2 Strategy

## Rules



## **The set-up**

Tiles are randomized on the table, and are stacked into eight stacks of four tiles each. This assembly is known as the woodpile. Various ritualistic "shuffles" are made, rearranging the tiles in the woodpile in standard ways that result in a new woodpile. Bets are then made.

Next, each player (including the dealer) is given four tiles with which to make two hands of two tiles each. The hand with the lower value is called the front hand, and the hand with the higher value is called the rear hand. If a player's front hand beats the dealer's front hand, and the player's rear hand beats the dealer's rear hand, then that player wins the bet. If a player's front and rear hands both lose to the dealer's respective hands, the player loses the bet. If one hand wins and the other loses, the player is said to push, and gets back only the money he or she bet. Generally seven players will play, and each player's hands are compared only against the dealer's hands.

## **Basic scoring**

The name "Pai Gow" is loosely translated as "Make Nine" or "Card Nine". This reflects the fact that, with a few high-scoring exceptions, the best a hand can score is nine. To find the value of a hand, simply add the total number of pips on the two tiles, and drop the tens place. So for instance, a 1-3 tile (a tile with one pip on one end and three pips on the other, for a total of four pips) used with a 2-3 tile (with five total pips) will score nine, since four plus five is nine. A 2-3 tile with a 5-6 tile will score six, and not sixteen, because you drop the 1. And a 5-5 tile with a 4-6 tile will score zero, since ten plus ten is twenty, and twenty reduces to zero when you drop the tens place.

## **Gongs and Wongs**

There are special ways in which a hand can score more than nine points. The double-one tiles and double-six tiles are known as the Day and Teen tiles, respectively. If a Day or Teen tile is used with an eight, the pair is worth ten instead of the usual zero. (This is called a Gong.) If a Day or Teen tile is used with a nine, the hand is worth eleven instead of one. (This is called a Wong.) But a Day or Teen tile used with a ten is only worth two, not twelve; this is because only eights and nines can be combined with Days or Teens for higher values. (In other words, when Day or Teen tiles are combined with tiles other than an eight or nine, follow the normal scoring rules.)

## **The Gee Joon tiles**

The 1-2 and the 2-4 tiles are called Gee Joon tiles (or sometimes called wildcards). Either tile can count as 3 or 6, whichever scores more. So a 1-2 tile can be used with a 5-6 tile to make a hand worth seven points, rather than four.

## Pairs

The 32 tiles in a Chinese Dominoes set can be arranged into 16 pairs, as shown in the picture at the top of this article. Eleven of these pairs have identical tiles, and five of these pairs are made up of two tiles that score the same, but look different. (The latter group includes the Gee Joon tiles, which can score the same, whether as three or six.) If a hand is made up of a pair, it always scores higher than a non-pair, no matter what the value of the pips are. (Pairs are often thought of as being worth 14 points each.)

When two pairs are compared, the higher-valued pair wins. This is not determined by the sum of their pips, but by aesthetics. It must be memorized which pairs score more than other pairs. The highest pairs are the Gee Joon tiles, the Teens, the Days, and the red eights. The lowest scoring pairs are the mismatched nines, eights, sevens, and fives. But even the lowest-scoring pair will beat any non-pair.

## Ties

When one of a player's hands is compared to one of the dealer's hands, it sometimes happens that both will have the same score. For instance, a player may have a front hand worth one point, consisting of a 3-4 tile and a 2-2 tile, and the dealer may have a front hand also worth one point, made up of a 5-6 tile and a 5-5 tile. In these cases, determine which tile in each hand has a higher value, as determined by the pair rankings mentioned above. In this case, the 2-2 tile is in a higher-ranking pair than the 3-4 tile, and the 5-5 tile is in a higher-ranking pair than the 5-6 tile. (Again, the rankings of the pairs follows no obvious pattern and must be memorized.) Since the 5-5 pair outranks the 2-2 pair, the dealer would win this front hand. In the unusual case of a true tie, where the dealer's high tile would be in the same pair as the player's high tile, the dealer wins the tie.

There are two exceptions to the method described above. First, although the Gee Joon tiles form the highest-ranking pair, they are considered to have no value when evaluating ties. Second, any zero-zero tie is won by the dealer, regardless of the tiles in the hand.

## Strategy

The basic decision to be made in Pai Gow is how to arrange one's hands. Given any four tiles, there are always three ways to arrange them into two hands (although some arrangements may be functionally identical to others). Sometimes one way will be clearly superior to another, but at other times it is difficult to determine the best strategy.

For instance, consider the four tiles at right. It would clearly be unwise to combine tile A with tile B, since each hand would be worth zero. It would make more sense to combine tile A with tile C, in which case both hands would be worth 5. Or you could pair tile A with tile D,

in which case your front hand would be worth 3 and your rear hand would be worth 7. Which is a better choice?

If you think the dealer will have poor hands, such as a front of 1 and a rear of 6, you would want to pair tile A with tile D in order to maximize your chance of winning. If you are afraid the dealer may have a better hand, such as a front of 4 and a rear of 9, then you will want to pair tile A with tile C in order to maximize your chance of pushing. You might also consider that pairing tile A with tile D will make it more likely that a tie would break in your favor.

Experience will help a player get a feel for which hand combinations will work well in which situations. Many players use various superstitions as well, believing that one should (for instance) never pair a 6-4 tile with a nine.

**Categories:** Gambling variants

## Panguingue

*Panguingue* (also known as *Pan*) is a gambling card game similar to rummy. It is particularly popular in Las Vegas and other casinos in the American southwest.

The game is played using a 320-card deck, constructed from eight decks of playing cards, removing all eights, nines, tens, and Jokers.

**Categories:** Gambling variants

## Trente et Quarante

*Trente et Quarante*, also called *Rouge et Noir* (*Red and Black*), is a game of French origin played with cards and a special table. It is one of the two games played in the gambling rooms at Monte Carlo, roulette being the other.

Two croupiers sit on each side of the table, one of them being the dealer; behind the two on the side opposite to the dealer a supervisor of the game has his seat. Six packs of fifty-two cards each are used; these are well shuffled, and the croupier asks any of the players to cut, handing him a blank card with which to divide the mixed packs. There are only four chances at trente et quarante: rouge or noir, known as the grand tableau', couleur or inverse, known as the petit tableau.

At Monte Carlo the stakes are placed on the divisions indicated on the table, the maximum being 12,000 francs and the minimum 20 francs which must be staked in gold. The dealer, who has placed all the cards before him, separates a few with the blank card, takes them in his left hand and invites the players to stake with the formula, "Messieurs, faites votre jeu!" After a pause he exclaims "Le jeu-est fait, rien ne va plus!" after which no stake can be made. He then deals the cards in a row until the aggregate number of pips is something more than thirty, upon which he deals a second row, and that which comes nearest to thirty wins, the top row being always distinguished as noir, and the lower as rouge. In announcing the result the word "trente" is always omitted, the dealer merely announcing "un, trois, quatre", as the

case may be, though when forty is turned up it is described as quarante. The words noir and inverse are also never used, the announcement being rouge gagne or rouge perd, couleur gagne or couleur perd. Gain or loss over couleur and inverse depends upon the color of the first card dealt.

If this should be also the color of the winning row, the player wins. Assuming, for example, that the first card dealt is red, and that the lower row of the cards dealt is nearest to thirty, the dealer will announce "Rouge gagne et le couleur." If the first card dealt is red, but the black or top row of cards is nearest to thirty, the dealer announces "Rouge perd et le couleur."

It frequently happens that both rows of cards when added together give the same number. Should they both, for instance, add up to thirty-three, the dealer will announce "Trois apres," and the deal goes for nothing except in the event of their adding up to thirty-one.

Un apres (i.e. thirty-one) is known as a refait; the stakes are put in prison to be left for the decision of the next deal, or if the player prefers it he can withdraw half his stake, leaving the other half for the bank. Assurance against a refait can be made by paying 1% on the value of the stake with a minimum of five francs. When thus insured against a refait the player is at liberty to withdraw his whole stake. It has been calculated that on an average a refait occurs once in thirty-eight coups.

After each deal the cards are pushed into a metal bowl let into the table in front of the dealer. When he has not en'ough left to complete the two rows, he remarks "Les cartes passent"; they are taken from the bowl, reshuffled, and another deal begins.

## References

- This article incorporates text from the Encyclopædia Britannica Eleventh Edition, a publication now in the public domain.

**Categories:** Gambling variants

## Two-up

*Two-up* (also known as swei or swy) is a gambling game, and one of Australia's many contributions to the world of gambling (another being the totalisator).

## Rules of the Game

The game is conducted in a flat circle of approximately 20 feet (6 metres) or larger. The only equipment required (aside from materials for tracking bets) is two coins (by tradition pre-decimal pennies), and a flat piece of wood called the "kip" approximately 8 inches in

length which has holes carved in it to fit the coins neatly but loosely enough for the coins to come out when tossed.

The game is run by a "boxer", who calls the first "spinner" (one of the players around the circle) in to toss the coins. The spinner wagers an amount of their choice on either "heads" or "tails". Other players around the ring can then also bet on either "heads" or "tails".

Once all bets are taken, the boxer calls "no more bets", and the player tosses the coins in the air using the kip. To be a valid throw, they must go above the head height of the spinner, be rotating sufficiently and land entirely in the ring - if they do not the boxer calls "barred" and the throw is retaken. Ideally the call must occur before the coins settle.

If the coins land both on the same face, the round ends and non-spinning player's bets are paid off, with people who bet on the same face as that landed winning. A new round of non-spinner bets is then taken before the spinner throws again.

If the coins come up with one tail and one head, the spinner spins again. If 5 "odds" come up, all players lose and a new spinner is selected.

If the spinner throws his nominated face three times before either 5 "odds" being thrown in a row, or a spin with both coins being the opposite face, the spinner wins and is paid at 7.5 to 1 (in most modern games).

## History

The exact origins of the game are obscure, but it seems to have evolved from "pitch and toss", a gambling game involving tossing a single coin into the air and wagering on the result of the toss which was popular amongst poorer English and Irish citizens in the 18th century. The predilection of the convicts for this game was noted as early as 1798 by the colony's first Judge Advocate, as well as the lack of skill and consequent losses at it.

There is evidence to suggest that pitch and toss had evolved into two-up, using two coins by the 1850's, and the game was played on the goldfields of the eastern states, and spread across the country with subsequent goldrushes elsewhere in Australia. As time passed, increasingly elaborate illegal "two-up schools" grew around Australia, to the consternation of authorities but in fact with the assistance of corrupt police officers.

The game was played extensively by Australia's soldiers during World War I, and games of two-up at which an even blinder official eye was cast became a regular part of ANZAC Day celebrations for the returned soldiers.

The games continued illegally for most of the 20th century throughout Australia, exclusively involving men and usually only Anglo-Australian men. Two-up was the basis of one of Australia's first major illegal gaming operations, the legendary Thommo's Two-up School, which operated at various locations in Sydney (sometimes even on boats and hired ferries) from the early years of the 20th century until well after World War II. Crime writer David Hickie claims that Thommo's was turning over tens of thousands of pounds annually by the 1920s, and it is generally acknowledged that it flourished for decades thanks to endemic police and official corruption.

Legal two-up arrived in Australia with its introduction as a "table" game at the new casino in Hobart in 1973. Laws were subsequently passed legalising two-up on Anzac Day and also legalising it at several two-up schools in outback towns (mainly as a tourist attraction). Two-

up is now played at many of Australia's casinos, but from the 1960s onwards it began to drop out of the illegal gaming culture. It was at first supplanted by the card game baccarat, which enjoyed a considerable vogue in the 1960s at the numerous illegal gaming houses around Sydney, but ultimately it was overtaken by the mainstream adoption of poker machines (slot machines) in NSW clubs. It is also played at Returned Serviceman's Leagues (RSLs) on Anzac Day.

**See also:** Heads or Tails

**Categories:** Gambling variants

# Casino

A *casino* is a facility that accommodates certain types of gambling activities. Casinos are often placed near or combined with hotels, restaurants, retail shopping, cruise ships and other vacation attractions. Some casinos are known for hosting live entertainment events, such as concerts and sporting events, especially boxing.

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## Gambling in casinos

In most jurisdictions, gambling is limited to persons over the age of majority (21 years of age in most of the United States and 18 to 20 in most other countries where casinos are permitted). Customers may gamble by playing slot machines or other games of chance (e.g., craps, roulette, baccarat) and some skill (eg., blackjack, poker) [for more see casino games]. Game rules usually have mathematically-determined odds that ensure the house retains an advantage over the players. This advantage is called the edge. Payout is the percentage given to players. In games such as poker, the house takes a commission (a "rake") on bets players make against each other. Our money refers to the situation where a winning player is placing bets with money that has been won from the casino.

## History

The term originally meant a small villa, summerhouse or pavilion built for pleasure, usually on the grounds of a larger Italian villa or palazzo. There are examples of such casinos at Villa Giulia and Villa Farnese. During the 19th century, the term casino came to include other more public buildings where pleasurable activities, including gambling and sports, took place. An example of this type of building is the Newport Casino. In modern Italian, this term designates a bordello (also called "casa chiusa", literally "closed house"), while the gambling house is spelled casinò with an accent.

## Security

Traditionally, casinos have had a major concentration on security. Large amounts of currency move through a casino, tempting people to cheat the system. Security today

consists of cameras located throughout the property operated by highly trained individuals who attempt to locate cheating and stealing by both players and employees.

Among the most secure and watched areas of a casino are the count rooms and the surveillance room.

## See also

- Casino Night
- Online casino
- Gaming law
- 

Categories: Casinos

## Black Book

*"Black Book"* is the nickname frequently used to refer to a list of persons who are unwelcome in casinos. The name comes from the fact that the persons listed in the "book" are essentially "blacklisted". The term can refer either to such a list officially maintained by a particular Gaming Control Board, or to the Griffin Book, whose information is shared by casinos throughout the gaming industry.

In the former case, persons listed are generally suspected of having, or known to have, ties to organized crime. Casinos are obliged by gaming regulations to exclude all such persons from entry, and can be subject to sanctions from the Gaming Control Board for failure to do so. In the latter case, listed individuals are generally suspected of being, or known to be, either advantage players or outright cheaters at the casino games themselves. Thus, casinos find it in their own economic best interest to exclude such individuals.

Categories: Casinos

## Casino game

Games available in most casinos are commonly called *casino games*. In a casino game, the players gamble casino chips on various possible random outcomes or combinations of outcomes. Casino games are available in online casinos, where permitted by law. Casino games can also be played outside of casinos for entertainment purposes, some on machines that simulate gambling.



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## House advantage

Casino games generally provide a predictable long-term advantage to the casino, or "house", while offering the player the possibility of a large short-term payout. Casino games often include an illusion of control, in which the player must make choices. However, in most cases it is not mathematically possible for a player to eliminate his or her inherent long-term disadvantage (the *house advantage*) in a casino game.

The player's disadvantage is a result of the casino not paying winning wagers according to the game's "true odds", which are the payouts that would be expected considering the odds of a wager either winning or losing. For example, if a game is played by wagering on the number that would result from the roll of one die, true odds would be 6 times the amount wagered since there is a 1 in 6 chance of any single number appearing. However, the casino may only pay 5 times the amount wagered for a winning wager.

## Categories of casino games

There are three general categories of casino games:

### Table games

Table games are played on a large table covered with a printed felt layout and may contain seating locations for players, with a dealer and other casino employees located on one side of the table (known as the "pit") and players located on the opposite side. Table games may be played with cards, dice, or other gaming equipment.

## **Gaming machines**

Gaming machines, such as slot machines, are usually played by one player at a time and do not require the involvement of casino employees to play.

## **Random number games**

Random number games are based upon the selection of random numbers, either from a computerized random number generator or from other gaming equipment. Random number games may be played at a table, such as Roulette, or through the purchase of paper tickets or cards, such as Keno or Bingo.

## **Common table games**

### **Cards**

- Asian stud
- Baccarat
- Blackjack
- Casino war
- Caribbean Stud Poker
  - Chinese poker
- Faro
- Four card poker
- Let It Ride
  - Mambo stud
- Pai gow poker
- Red dog
- Spanish 21
- Texas Hold'em Bonus Poker
- Three card poker
- Two-up

### **Dice / Tiles**

- Craps
- Pai Gow
- Sic bo

- Chuck-a-luck

### **Random numbers**

- Big Six wheel
- Roulette

### **Common random number games (non-table)**

- Bingo
- Keno

### **Common gaming machines**

- Slot machine
- Video Lottery Terminal
- Video poker

### **See also**

- Gambler's fallacy

Categories: Casinos

## **Casino token**

*Casino tokens* are small colored metal or plastic discs used in gambling establishments.

There are two main types of tokens used in casinos: multicolor tokens of various denominations called *chips*, used primarily in table games; and metal *token coins*, used primarily in slot machines. Some casinos also use gaming plaques for high stakes table games (\$25,000 and above). Plaques differ from chips in that they are larger, usually rectangular in shape and contain serial numbers.

Money is exchanged for the token coins or chips in a casino at a cashier station (the cage), at the gaming tables, or at a slot machine. The tokens are interchangeable with money at the casino, but have no value outside of the establishment.

These tokens are employed for several reasons. They are more convenient to use than currency, and also make theft and counterfeiting more difficult. Because of the uniform size and regularity of stacks of chips, they are easier to count compared to paper currency when

used on a table. This attribute also enables the pit boss or security to quickly verify the amount being paid, reducing the chance that a dealer might be overpaying a customer.

Furthermore, it is observed that consumers gamble more freely with replacement currencies than with cash.

Finally, the chips are considered to be an integral part of the casino environment, and replacing them with some alternate currency would be unpopular. However, many casinos are moving to paper receipts.

Casino tokens are collected as a part of numismatics, more specifically as specialized exnumia collecting.

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## Chip Denominations

*Main article: poker chip*

Chips of the same denomination from different casinos tend to have similar colors. This increases familiarity with denominations.

The most common color scheme used in US casinos:

- \$1.00: White (uncommon: blue, grey)
- \$2.50: Pink
- \$5.00: Red
- \$25.00: Green
- \$100.00: Black
- \$500.00: Purple
- \$1000.00: Orange (often oversized)

## History

After the increase in the value of silver stopped the circulation of silver dollar coins around 1964, casinos rushed to find a substitute, as most slot machines at that time used that particular coin. The Nevada Gaming Control Board consulted with the US Treasury, and casinos were soon allowed to start using their own tokens to operate their slot machines. The Franklin Mint was the main minter of tokens at that time.

In many jurisdictions, casinos are not permitted to use currency in slot machines, necessitating tokens for smaller denominations.

Tokens are being phased out of many casinos in favor of coinless machines which accept banknotes and print receipts for payout. (These receipts can also be inserted into the machines.)

## Future

In certain casinos, such as the new Wynn Casino in Las Vegas, chips are embedded with RFID tags to help casinos keep better track of them, determine gamblers' average bet sizes, and to make them harder for counterfeiters to reproduce. However, this technique is costly and considered by many to be unnecessary. Also, this technology provides minimal benefits in games with layouts that do not provide gamblers with their own designated betting areas, such as craps.

Categories: Casinos

## Cheating

*Cheating in casinos* refers to actions which are prohibited by a casino's rules. Cheating is usually illegal but the exact sanctions will depend on the jurisdiction in which the casino operates. In Nevada, cheating in a casino is a felony under Nevada law. In most other jurisdictions, specific statutes do not exist but cheating in a casino would likely be considered fraud and dealt with as such by the authorities.

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## Methods of cheating

The methods for cheating in a casino are often specific to individual games and include:

### Pastposting

After a bet is won, one replaces smaller denomination chips with chips of large denomination.

### Hand Mucking

Palming desirable cards then switching them for less desirable cards that the gambler holds.

### Marking Cards During Play

Various methods.

### Introducing Previously Marked Decks Into Play

Usually involves "inside" help, i.e., the collusion of casino employees. There are many different way to mark decks of cards, some of them very difficult to detect.

### False Deals

Ability to deal the second card from the top (used in conjunction with marked cards), or the ability to deal the bottom card of the deck (used in conjunction with placing desirable cards at the bottom of the deck.)

#### False Shuffles and Cuts

Ability to seemingly mix and cut the cards while retaining certain cards or the whole deck in a desired order.

#### Slot Machines

Methods exist for altering the outcome of slot machine games.

#### Collusion

In poker games, the practice of two partners signalling to each other the values of their cards; this can be very difficult to detect.

## How casinos combat cheating

#### Proper Procedure

This means certain standardized ways of shuffling cards, dealing cards, storing, retrieving and opening new decks of cards.

#### Eyes in the Sky

Most casinos have an extensive array of cameras and recorders which monitor and record all the action in a casino. Some casinos use facial recognition software to detect known cheats or card counters/advantage players as they enter the casino.

#### Software

Casinos use software to analyze game play to uncover any unusual betting patterns or winning patterns and thus discern cheaters (as well as non-cheating card counters and "advantage players").

## See also

Cheating in poker

Categories: Casinos

## Griffin Book

The *Griffin Book* is a listing of known or suspected gambling cheaters and advantage players published by Griffin Investigations, a firm that monitors casinos. Those listed may be anyone perceived as a threat to the casino's profits, including card counters, people who mark cards and those who try to cheat slot machines. The book keeps pictures either obtained from a photo of the individual when caught or from surveillance photos.

## See also

- Black Book

Categories: Casinos

## Locals casino

A *locals casino* is a casino designed to attract residents of the area in which it was built rather than tourists or vacationers. The term is most commonly associated with Las Vegas.

Locals casinos usually have a different mix of games than other casinos in the area. They usually offer higher payouts, with some video poker machines offering payouts of greater than 100 percent to attract those who live in the area. Local casinos can range from locations with fewer than 15 machines such as a bar with no lodging to resorts that have hundreds of machines and hotels with hundreds of rooms.

In order to attract locals, these casinos offer services like payroll check cashing, frequently with some type of free play bonus, to get patrons into the casino. This is usually expanded with special promotions to cash Internal Revenue Service tax refund checks in Nevada.

Locals casinos in Vegas will offer games not available in Strip casinos like bingo. They frequently include bowling, movie theaters and occasionally day care.

Categories: Casinos

## Online casino

*Online casinos*, also known as *virtual casinos* or *internet casinos*, are online versions of traditional ("brick and mortar") casinos. Online casinos enable gamblers to play and wager on casino games through the Internet.

Online casinos generally offer odds and payback percentages that are comparable to land-based casinos. Some online casinos claim higher payback percentages for slot machine games, and some publish payout percentage audits on their websites. Assuming that the online casino is using an appropriately programmed random number generator, table games like blackjack have an established house edge. The payout percentage for these games are established by the rules of the game.

Reliability and trust issues are commonplace and often questioned. Many online casinos lease or purchase their software from well-known companies like Wager Works, Microgaming, Realtime Gaming, Playtech and Cryptologic in an attempt to "piggyback" their reputation on the software manufacturer's credibility. These software companies either use or claim to use random number generators to ensure that the numbers, cards or dice appear randomly.

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## **Online casino types**

Online casinos can be divided into three groups based on their interface: web-based casinos, download-based casinos, and more recently live casinos. Some casinos offer multiple interfaces.

### **Web-based online casinos**

Web-based online casinos are websites where users may play casino games without downloading software to the local computer. Games are mainly represented in the browser plugins Macromedia Flash, Macromedia Shockwave, or Java and require browser support for these plugins. Also, bandwidth is needed since all graphics, sounds and animations are loaded through the web via the plugin. Some online casinos also allow gameplay through a plain HTML interface.

### **Download-based online casinos**

Download-based online casinos require the download of the software client in order to play and wager on the casino games offered. The online casino software connects to the casino service provider and handles contact without browser support. Download-based online casinos generally run faster than web-based online casinos since the graphics and sound programs are located within the software client, rather than having to be loaded from the Internet. On the other hand, the initial download and installation of a download-based online casino client does take time. As with any download from the Internet, the risk of the program containing malware does exist.

### **Live-based casinos**

Live-based casino gaming is a way to interface with a real world casino while playing online. Recent advancements in communication technology now allow land-based casinos to open a real-time window via the web for players to game tables in an interactive, live environment. With live gaming players can see, hear, and interact with live dealers at tables in brick and mortar casinos worldwide.



## Games offered

A typical selection of games offered at an online casino might include:

- Baccarat
- Blackjack
- Craps
- Roulette
- Slot Machines
- Video Poker

**See also** casino game.

## Signup bonuses

Many online casinos offer signup bonuses to new players making their first deposit. These bonuses normally match a percentage of the player's deposit with a dollar maximum, and almost all online casino signup bonuses require a minimum amount of wagering before allowing a cash out. Gameplay at specific casino games might be excluded from the wagering requirement calculation.

A fictional signup bonus offer follows as an example:

- The online casino offers new players a deposit matching bonus of 100%, up to \$100
- The player must wager 25 times the total amount of the deposit plus the bonus before withdrawing
- Wagers on baccarat, craps, roulette, and sic bo do not count towards meeting wagering requirements

For this particular example, this would mean that a player depositing \$100 would start with \$200 in his account. The player must make \$5000 ( $\$200 \times 25$ ) in wagers before being allowed to make a withdrawal.

Advantage play in casino signup bonus situations is mathematically possible. For example, the house edge in blackjack is roughly 0.5%. In the example above, \$5000 in wagering with a house edge of 0.5% will result in an expected loss of \$25. Since the player received a \$100 signup bonus, the player has an expected profit of \$75.

Advantage players who use bonus offers for an expected profit are often called "bonus hunters", "bonus abusers", "bonus baggers", "bonus whores" and "casino scalpers". Some online casinos have restrictions regarding "the spirit of the bonus offer" which they sometimes use as a deterrent to what they consider "bonus abuse".

A player who wishes to do this at a large number of online casinos must be careful. Some casinos are rogues (see below) and do not pay. Others have terms and conditions that are not favorable to the player, such as most bonuses that are restricted to slots.

## **Fraudulent online casino behavior**

Fraudulent behavior on the part of online casinos has been documented. The most commonly reported behaviors are refusal to pay withdrawals or cheating software. Online casinos who have multiple confirmed cases of fraudulent behavior are often called "rogues" or *rogue casinos* by the online casino player community.

One commonly reported behavior related to refusal to pay withdrawals is the refusal to pay withdrawals promptly, in hopes that the player will continue gambling with the money in the account and lose it all back.

Cheating software appears to be less common than payout problems.

Some casino software has been mathematically proven to cheat, such as Casino Bar (evidence by Michael Shackleford and others). Elka System/Oyster Gaming software is known to cheat, also confirmed by Michael Shackleford. Statistically non-random video poker has been reported at Playtech, see article "OCA STATS". Screen shots from the back office of an older brand of software indicated the odds could be adjusted by the operator.

Much of the speculation about casino software cheating is usually the result of a player finding a pattern in a statistically small set of results. Most people in the online casino industry believe that most of the major casino software brands offer odds and paybacks that are the same as their land-based casino counterparts.

Many casino gambling portals and player forums maintain blacklists of rogue casinos. These can easily found in any major search engine, but most of them constitute individual webmaster and player opinions rather than anything official from any type of regulating body.

## **Fraudulent player behavior**

Common fraudulent behavior from online casinos players includes the signing up for multiple casino accounts using different identities in order to claim a bonus offer multiple times. Another form of fraudulent behavior might be the use of a graphics editing software like Adobe Photoshop to create a false winning slot machine game screenshot in an attempt to tell the casino they hit a jackpot and didn't get paid for it.

Online casinos usually lock the player accounts for these people, and it's widely believed that online casinos share fraudulent player blacklists.

## Legality

See online gambling for a discussion of the legality of playing at an online casino.

## See also

- Casinos
- Gambling
- Poker
- Online poker
- Slot machines
- Blackjack
- Video poker
- Craps
- Sportsbook
- Compulsive gambling

Categories: Casinos

## Racino

*Racino* is a portmanteau for a combined race track and casino. In some cases, the gambling is limited to slot machines, but many locations are beginning to include table games such as blackjack, poker, and roulette.

In 2003, Joe Bob Briggs described the economic motivation of race track owners to convert into racinos:

Horse racing and dog racing have been in a slow decline for almost 20 years now....the only tracks that have really thrived are the ones that have slot machines. In many cases their live handle (the daily amount bet at the track by live customers) has continued to decline, but their revenues have shot up so fast that they're able to offer the biggest purses and thereby attract the best horses. Tracks like Delaware Park and West Virginia's Mountaineer Park, once considered places where local degenerates bet on broken-down nags in claiming races, are now among the wealthiest tracks around, with the best races. Fabled tracks like Churchill Downs and Pimlico, on the other hand, sometimes have trouble making ends meet.

USA Today noted in a June 2003 article that receipts from slot machines are divided about evenly in four ways:

- Payment of the operating costs and payouts to lucky gamblers,
- State taxes,
- Prize money (the purse) offered to jockeys and horse owners, and
- Profit for the racino operator.

According to Focus on the Family, as of 2003 racinos are legal in at least eight states: Delaware (since 1995), Iowa, Louisiana, Maine, New Mexico, New York, Rhode Island (since

1992), and West Virginia (since 1990). West Virginia pioneered the concept when MTR Gaming Group was allowed to introduce video lottery terminals (VLTs) to Mountaineer Race Track & Gaming Resort in Chester.

While VLTs were somewhat successful, a November 2003 article from the Global Gaming Insider noted the real financial success story was the introduction of reel spinning slot machines in Iowa:

In 1994, Iowa voters authorized reel spinning slot machines at Iowa racetracks (including Greyhound tracks). Polk County, the owner of a brand new, bankrupt horse track, Prairie Meadows, spent \$26 million to convert the clubhouse into a casino and install 1,100 slot machines. The racino opened for business on April 1, 1995. Reel-spinning slots proved to be much more popular than video poker. In the twelve months ended March 31, 1996 machine revenues totaled \$119.3 million, enabling Polk County to pay off the \$27 million bond issue that paid for the clubhouse casino conversion and retire the track's initial \$38.8 million bond issue 17 years early.

With Prairie Meadows the racino came of age. The rapid transformation of a failed Iowa horse track into a highly profitable horse racing/slot gaming business was the defining moment in the marriage of pari-mutuel betting and machine gaming. For racing returned to Prairie Meadows in reinvigorated form. Purses, subsidized by revenues from slot machines, increased by a factor of six, from about \$20,000 per day prior to slots to a planned \$126,000 per day over the 1997 racing season. Higher purses attracted higher quality horses. This higher-quality racing was in turn exported by Prairie Meadows to other racetracks and simulcast facilities throughout North America, a high margin, profitable business. Less visibly, slot machines had a positive impact on Iowa horse breeding, a development with long-term consequences for the evolution of Iowa gambling law.

The Global Gaming Insider article also noted that the creation of the racino has led to consolidation in the ownership of racetracks, with Magna Entertainment Corporation and Churchill Downs Incorporated the largest.

In November 2004, Florida voters amended their state constitution to allow slot machines at parimutuel facilities.

**Categories:** Casinos | Horse racing

## Riverboat casino

A *Riverboat casino* is a type of casino unique to several areas of the United States. Several states authorized this type of casino to limit the areas where casinos could be constructed.

The economic impacts of, first, limited sailing time and, later, from being closed as a result of storm damage, have restricted interest in this type of casino.

## History

When first approved, these casinos were required to actually be located on ships that could sail away from the dock. In some areas, gambling was only allowed when the ship was sailing. Over time, these regulations allowed gambling when the ship was docked.

Further changes allowed these casinos to be located in a moat or an area with water adjacent to a navigable waterway. Over time, these casinos were allowed to be built on stilts but still had to be over water.

Following Hurricane Katrina in 2005 several states are now allowing these casinos to be built on land within certain limits from a navigable waterway.

Categories: Casinos

## Las Vegas

Las Vegas, Nevada

Nickname: "The Entertainment Capital of the World"

Location

Coordinates 36°112003N, 115°132003W

Government

County Clark

Mayor Oscar B. Goodman

Geographical characteristics

Area

City 113.4 mi<sup>2</sup> / 293.70 km<sup>2</sup>

Land 113.3 mi<sup>2</sup> / 293.45 km<sup>2</sup>

Water 0.1 mi<sup>2</sup> / 0.26 km<sup>2</sup>

Elevation 664 m

Population

City (2005) 545,147

Density 1840.2/km<sup>2</sup>

Metro 1,650,671

Time zone PST (UTC-8)

Summer (DST) PDT (UTC-7)

Website: <http://www.lasvegasnevada.gov/>

*Las Vegas* is the most populous city in the state of Nevada, United States, and a major vacation, shopping, entertainment and gambling destination. It was established in 1905, officially became a city in 1911 and became the largest American city founded in the 20th century.

The name Las Vegas is often applied to the unincorporated areas of Clark County that surround the city, especially the resort areas on and near the Las Vegas Strip. This 4½ mi (7¼ km) stretch of Las Vegas Boulevard is mostly outside the Las Vegas city limits, in the unincorporated town of Paradise.

The center of gambling in the US, Las Vegas is marketed as The Entertainment Capital of the World, also commonly known as Sin City, due to the popularity of legalized gambling, availability of alcoholic beverages at any time (like all of Nevada), and various forms and degrees of adult entertainment. The city's glamorous image has made it a popular setting for films and television programs.

## Contents

- 1 History
  - 1.1 Founding
  - 1.2 Major events
  - 1.3 Economic history
- 2 Law and government
  - 2.3 Government offices
- 3 Geography
  - 3.1 Climate
- 4 Demographics
- 5 Education
- 6 Economy
- 7 City redevelopment
- 8 Transportation
- 9 Culture and Attractions
- 10 Sister cities

## History

### Founding

Las Vegas was given its name by Spaniards in the Antonio Armijo party, who used the water in the area while heading north and west along the Old Spanish Trail from Texas. In the 1800s, areas of the Las Vegas Valley contained artesian wells that supported extensive green areas or Meadows (Vega in Spanish), hence the name Las Vegas.

John C. Frémont traveled into the Las Vegas Valley on May 3, 1844, while it was still part of Mexico. He was a leader of a group of scientists, scouts and observers for the United States Army Corps of Engineers. On May 10, 1855, following annexation by the United States, Brigham Young assigned 30 Mormon missionaries led by William Bringham to the area to convert the Paiute Indian population. A Fort was built near the current downtown area,

serving as a stopover for travelers along the "Mormon Corridor" between Salt Lake and the briefly thriving Mormon colony at San Bernardino, California. Las Vegas was established as a railroad town on May 15, 1905, when 110 acres (44.5 ha) owned by Montana Senator William A. Clark's San Pedro, Los Angeles and Salt Lake City Railroad, was auctioned off in what is now downtown Las Vegas. Las Vegas was part of Lincoln County until 1909 when it became part of the newly established Clark County. Las Vegas became an incorporated city on March 16, 1911 when it adopted its first charter.

## **Major events**

Major events in Las Vegas' history include:

- Establishment of Las Vegas as a railroad town (May 15, 1905).
- Legalization of gambling (March 19, 1931).
- Completion of Hoover Dam (October 9, 1936).
- Opening of Bugsy Siegel's Flamingo Hotel on what would become the Las Vegas Strip (December 26, 1946).
- On July 17, 1960 The first Strip property "The El Rancho" was consumed by fire.
- Atmospheric nuclear testing (1951 to 1962).
- The floods of 1955, 1984, 1999, and 2003.
- MGM Grand Hotel fire (November 21, 1980), the worst disaster in Nevada history.
- Opening of the Mirage (November 22, 1989), which began the era of megaresort casinos.
- On October 27, 1993, the Dunes was the first Strip property imploded to make way for the Bellagio.
- 100th birthday, or Centennial, of Las Vegas (May 15, 2005).
- Arena Bowl 2005, 2006
- 2007 NBA All-Star Game

## **Economic history**

Las Vegas started as a stopover on the pioneer trails to the west, and became a popular railroad town in the early 1900s. It was a staging point for all the mines in the surrounding area, especially those around the town of Bullfrog, that shipped their goods out to the rest of the country. With the growth of the railroads, Las Vegas became less important, but the completion of the nearby Hoover Dam resulted in substantial growth in tourism, which, along with the legalization of gambling, led to the advent of the casino-hotels for which Las Vegas is famous.

The constant stream of tourist dollars from the hotels and casinos was augmented by a new source of federal money. This money came from the establishment of what is now Nellis Air Force Base. The influx of military personnel and casino job-hunters helped start a land building boom which still goes on today.

## Law and government

The Las Vegas Metropolitan Police Department provides most law enforcement services in the city and surrounding county. Exceptions include cities with their own law enforcement agency; including North Las Vegas, Henderson and Boulder City.

Most of the people and businesses who call Las Vegas home actually live in neighboring unincorporated communities that have no city government or in other nearby cities, some of which are listed below. In fact, of the nearly 1.6 million people who live in the Las Vegas valley, only 575,973 live inside Las Vegas city limits. The largest of these towns are Paradise (188,768) between Las Vegas and Henderson (224,829), Sunrise Manor (184,801) east of Las Vegas and North Las Vegas, and Spring Valley (161,286) southwest of Las Vegas. These towns formed during a 1940s water dispute between the City of Las Vegas and early homeowners south of San Francisco Street, now Sahara Avenue.

The City of Las Vegas government operates as a council-manager government. The Mayor sits as a Councilmember-At-Large and presides over all of the City Council meetings. In the event that the Mayor cannot preside over a City Council meeting the Mayor Pro-Tem is the presiding body of the meeting until such time as the Mayor returns to his seat. The City Manager is responsible for the administration and the day to day operation of all of the municipal services and city departments. The City Manager also maintains an intergovernmental relationships with federal, state, county and other local governments.

A Paiute Indian reservation occupies about 1 acre (4,000 m<sup>2</sup>) in the downtown area of Las Vegas.

## Government offices

City of Las Vegas	Metropolitan Police Department	Detention Center (City jail)
Government Offices	400 Stewart Avenue	(not County Detention)
400 Stewart Avenue	Las Vegas, NV 89101	3200 Stewart Avenue
Las Vegas, NV 89101		Las Vegas, NV 89101

Marriage licenses are filed at the *Clark County Courthouse*.

## Geography

Las Vegas is located at 36°11'23.93"N, 115°13'21.93"W (36.194168, 115.222060)GR1. According to the United States Census Bureau, the city has a total area of 182.50 km<sup>2</sup> (113.4 mi<sup>2</sup>). 182.34 km<sup>2</sup> (113.3 mi<sup>2</sup>) of it is land and 0.16 km<sup>2</sup> (0.1 mi<sup>2</sup>) of it (0.04%) is water.

The city is located in an arid basin surrounded by mountains varying in color from pink to rust to gray. As befits a desert, much of the landscape is rocky and dusty. Within the city, however, there are a great deal of lawns, trees, and other greenery. Due to water resource issues, there is now a movement to encourage xeriscaping instead of lawns. Another part of the water conservation efforts include scheduled watering groups for watering residential landscaping.



## **Climate**

Las Vegas' climate is typical of the Mojave Desert, in which it is located, marked with hot summers, mild winters, abundant sunshine year-round, and very little rainfall. Highs in the 90s (Fahrenheit) are common in the months of May, June, and September and temperatures normally exceed 100 °F (38 °C) most days in the months of July and August, but there is very low humidity. The hottest temperature ever recorded is 117 °F (47 °C) set twice, on July 19, 2005, at McCarran International Airport and July 24, 1942, at present-day Nellis Air Force Base. Winters are cool and windy, with the majority of Las Vegas' annual 4.49 in (114 mm) of rainfall coming from January to March. Winter daytime highs are normally around 60 °F (16 °C) and winter nighttime lows are usually around 40 °F (4 °C). The coldest temperature ever recorded is 8 °F set on January 25, 1937, at present-day Nellis Air Force Base. Showers occur less frequently in the Spring or Autumn. July through September, the Mexican Monsoon often brings enough moisture from the Gulf of California across Mexico and into the southwest to cause afternoon and evening thunderstorms. Although winter snow is usually visible from December to May on the mountains surrounding Las Vegas, it rarely snows in the city itself.

## **Demographics**

Las Vegas has been the county seat of Clark County since the formation of the county in 1909. The Census Bureau's official population estimate as of 2005 was 545,147. The city's Planning and Development Department reported an increase of 41,126 in 2005, for a total population of 575,973. [2]. Recent figures place the population for the Las Vegas metropolitan area, which includes all of Clark County, at over 1.6 Million people (2004 [3]), and the region is one of the fastest growing in the United States. Las Vegas was ranked as the 29th largest city in the United States in 2000, but recent estimates state the city's population surpassed that of Nashville, Washington, D.C., Louisville, Denver and Boston to place Las Vegas at #22. It is likely it will surpass Milwaukee and possibly a few other cities to reach the top 20 by the 2010 Census. As of the censusGR2 of 2000, there were 478,434 people, 176,750 households, and 117,538 families residing in the city. The population density was 1,630.3/km<sup>2</sup> (4,222.5/mi<sup>2</sup>). There are 190,724 housing units at an average density of 649.9/km<sup>2</sup> (1,683.3/mi<sup>2</sup>). The racial makeup of the city was 69.86% White, 10.36% African American, 0.75% Native American, 4.78% Asian, 0.45% Pacific Islander, 9.75% from other races, and 4.05% from two or more races. 23.61% of the population is Hispanic or Latino of any race.

There were 176,750 households out of which 31.9% had children under the age of 18 living with them, 48.3% were married couples living together, 12.2% had a female householder with no husband present, and 33.5% were non-families. 25.0% of all households were made up of individuals and 7.5% had someone living alone who was 65

years of age or older. The average household size was 2.66 and the average family size was 3.20.

In the city the population was spread out with 25.9% under the age of 18, 8.8% from 18 to 24, 32.0% from 25 to 44, 21.7% from 45 to 64, and 11.6% who were 65 years of age or older. The median age was 34 years. For every 100 females there were 103.3 males. For every 100 females age 18 and over, there were 102.5 males.

The median income for a household in the city was \$44,069, and the median income for a family was \$50,465. Males had a median income of \$35,511 versus \$27,554 for females. The per capita income for the city was \$22,060. About 8.6% of families and 11.9% of the population were below the poverty line, including 15.4% of those under age 18 and 8.3% of those age 65 or over.

As of the 2004 census estimate, the Las Vegas metropolitan area contained over 1.6 million residents, and contains the largest Hawaiian community, outside of Hawaii.

## **Education**

Primary public education is provided by the Clark County School District (CCSD), which is the fifth largest school district in the nation.

Las Vegas has no independent four-year university within its city limits. The University of Nevada, Las Vegas is located in Paradise, three miles south of the city limits. The University of Nevada Medical School has a campus near downtown Las Vegas. Several national colleges, including the University of Phoenix, have campuses in the Las Vegas area. Nevada State College, and Touro University's College of Osteopathic Medicine are both located in nearby Henderson. The Community College of Southern Nevada has campuses in Las Vegas, North Las Vegas and Henderson.

## **Economy**

The primary drivers of the Las Vegas economy have been the confluence of tourism, gaming, and conventions which in turn feed the retail and dining industries. Several companies involved in the manufacture of electronic gaming machines, such as slot machines, are located in the Las Vegas area. In the 2000s retail and dining have become attractions of their own.

Tourism marketing and promotion are handled by the Las Vegas Convention and Visitors Authority, a county wide agency. Its annual Visitors Survey provides detailed information on visitor numbers, spending patterns and resulting revenues [4].

Las Vegas as the county seat and home to the Lloyd D. George Federal District Courthouse, draws numerous legal service industries providing bail, marriage, divorce, tax, incorporation and other legal services.

The redevelopment listed below shows how the city is trying to diversify the local economy and revitalize the downtown area. The World Market Center is an example of this.

## City redevelopment

When The Mirage, the first Megaresort, opened in 1989, it started a movement of people and construction away from downtown Las Vegas to the Las Vegas Strip. This resulted in a drop in tourism from which the downtown area is still trying to recover.

A concerted effort has been made by city officials to diversify the Las Vegas economy from tourism by attracting light manufacturing, banking, and other commercial interests. The lack of any state individual or corporate income tax and very simple incorporation requirements have fostered the success of this effort.

Having been late to develop an urban core of any substantial size, Las Vegas has retained very affordable real estate prices in comparison to nearby urban centers. Consequently, the city has recently enjoyed an enormous boom both in population and in tourism. However, as a New York Times series on the city reported in 2004, the median price of housing in the Las Vegas Valley is now at or above the nationwide median. The urban area has grown outward so quickly that it is beginning to run into the Bureau of Land Management holdings along its edges, increasing land values enough that medium- and high-density development is beginning to occur closer to the core.

As a reflection of the city's rapid growing population, the new Chinatown of Las Vegas was constructed in the early 1990s on Spring Mountain Road. Chinatown initially consisted of only one large shopping center complex, but the area was recently expanded for new shopping centers that contain various Asian businesses.

With the Strip expansion in the 1990s, downtown Las Vegas began to suffer. The Fremont Street Experience (FSE) was built in an effort to draw tourists downtown. While greatly slowing the decline, it did not stop the decline in tourism and revenue. The multi-level Neonopolis, complete with food court and theaters, was built to offer more retail and services downtown. While there have been changes in ownership and management, Neonopolis has not been able to lease all the space available. As of March 2005, the property is for sale.

The city purchased 61 ac (247,000 m<sup>2</sup>) of property from Union Pacific Railroad during the 1990s with the goal of creating something that would draw tourists and locals to the downtown area. Las Vegas Mayor Oscar Goodman has announced plans for the Union Park Development which will include residential and office high-rises, The Lou Ruvo Alzheimer's Institute, an academic medical center, The Fred W. and Mary B. Smith Center for the Performing Arts, a new City Hall and a possible baseball stadium. After failed negotiations with The Related Co. on the development of Union Park in October of 2005, San Diego-based Newland Communities was chosen by the city as the new development firm. The Newland contract calls for Dan Van Epp, Newland's regional vice president and former president of the Howard Hughes Corp., to oversee his company's work on Union Park. The \$50-million Lou Ruvo Alzheimer's Institute designed by architect Frank Gehry is expected to break ground in August of 2006.[5]

The city council of Las Vegas has agreed on zoning changes on Fremont Street, which allows bars to be closer together duplicating efforts of similar cities, like the Gaslamp Quarter of San Diego. It is expected that this change will bring more tourism and business to the downtown area.

In the early 2000s, some promising signs emerged for downtown Las Vegas. The city successfully lured the Internal Revenue Service to move operations from outside the city limits to a new building downtown that opened in April 2005. The IRS is expected to create a demand for additional businesses in the area, especially in the daytime hours.

Another promising sign of development has come in the form of high-rise development. A substantial increase in the number of high-rises under construction and proposed in Las Vegas began in 2003 and has continued into 2006. New Condominium and hotel high rise projects have caused the entire Las Vegas skyline to change dramatically in recent years. Many large projects are planned for downtown Las Vegas as well as the Las Vegas Strip including the largest privately financed development proposed in the United States- Project City Center. It is expected that high rise condominium development will transform the downtown area into a vibrant urban center, and change the demographics of the Las Vegas Strip by adding residential elements to tourist areas.

In 2005, on a lot adjacent to the city's 61 ac (247,000 m<sup>2</sup>), the World Market Center opened. It is intended to be the nation's and possibly the world's preeminent furniture wholesale showroom and marketplace, and is meant to compete with the current furniture market capital of High Point, North Carolina.

In 2004, the city partnered with Cheetah Wireless Technologies and MeshNetwork to pilot a wide area mobile broadband system. The pilot system is installed downtown, around the Fremont Street Experience.

## **Transportation**

The CAT Bus is a popular means of public transportation among locals and tourists with various bus routes covering a large portion of the valley. The CAT system carries approximately 175,000 people per weekday, or about 10% of the Valley's population. Ridership on the system has been increasing rapidly since the summer of 2005, when a combination of high gas prices and service improvements began attracting more riders. A need for increased frequency and new routes caused by the tremendous growth in the Valley stretches the system's resources.

The Las Vegas Monorail runs from the MGM Grand Hotel at the south end of the Strip to the Sahara Hotel at the north end of the Strip.

The street numbering system is divided by the following streets:

- Westcliff Drive, US-95 Expressway, Fremont Street and Charleston Boulevard divides the north-south block numbers from west to east.
- Las Vegas Boulevard divides the east-west streets from the Las Vegas Strip to near the Stratosphere, then Main Street becomes the dividing line from the Stratosphere to the North Las Vegas border, after which the Goldfield Street alignment officially divides east and west.

McCarran International Airport provides commercial flights into the Las Vegas valley. The airport also serves private aircraft, domestic and international passenger flights, and freight/cargo flights. Although general aviation traffic flies into McCarran International, other airstrips are available.

Intercity bus service to Las Vegas is provided by traditional intercity bus carriers, including Greyhound; many charter services, including Green Tortoise; and several Chinatown bus lines.

Primary roadways into and out of Las Vegas include I-15 (north towards Salt Lake City, Utah, and south towards San Diego and Los Angeles, California, and other points in Southern California), US 93 (north towards Ely, Nevada and Jackpot, Nevada, and south towards Kingman, Arizona) and US 95 (north towards Reno and south towards Searchlight, Nevada), providing access to Interstates I-80 and I-40.

Until 1997, the Amtrak Desert Wind train service ran through Las Vegas using the Union Pacific Railroad (UP) rails that run through the city; Amtrak service to Las Vegas has since been replaced by Amtrak's Thruway Motorcoach bus service. Plans to restore Los Angeles to Las Vegas Amtrak service using a Talgo train have been discussed since the Desert Wind was discontinued. As of 2006, however, no such service has been established.

Union Pacific Railroad (UP) is the only class one railroad to provide rail freight service to the city.

Some groups have proposed the California-Nevada Interstate Maglev line from Las Vegas to Los Angeles in order to ease the incoming and outgoing traffic congestion on I-15.

## **Culture and Attractions**

Las Vegas has no major league sports team; however, there are many sports activities in the area. The University of Nevada, Las Vegas fields Division I athletic teams and the NCAA football Las Vegas Bowl call the city home. The Las Vegas Motor Speedway (LVMS), just north of the city hosts NASCAR and other automotive events. Visitors and residents also have many options for boating, golf, hiking, rock climbing. The city has many parks which offer a wide range of activities.

The city hosts several non-major-league sports teams: the Las Vegas Gladiators in the Arena Football League, the Las Vegas 51s, a Los Angeles Dodgers franchise in the Triple A Pacific Coast League, and the Las Vegas Wranglers of the ECHL hockey league. However, due to the perceived risks of professional sports being played in a city with legal sports betting, none of the major professional sports leagues have ever had a team in Las Vegas, with the notable exception of the Utah Jazz' half-season schedule at the Thomas and Mack Center in 1983-84. The possibility of relocating or adding a professional major-league team to Las Vegas is an ongoing discussion that the city government is having with several leagues.

In addition, Las Vegas will host the 2007 NBA All-Star Game, marking the first time the NBA All-Star Game will be held in a non-NBA city. It will be played at the Thomas and Mack Center. The date for the All-Star game has yet to be announced.

In 2005, the city hosted Arena Bowl XIX at the Thomas & Mack Center. It was the AFL's first-ever neutral-site title game. Las Vegas will host the Arena Bowl again in 2006. The city also heavily inspired the fictional city, Las Venturas, in the video game Grand Theft Auto San Andreas. Venturas is mostly, if not fully, a replica of Las Vegas.

Rumors have surfaced about the possible relocation of the Sacramento Kings to Las Vegas in the near future if Sacramento cannot build a new arena for the team. Kings owners Joe and

Gavin Maloof also have ties to the city as they are co-owners of The Palms Hotel & Casino which would make the move more or a possibility.

### **Sister cities**

Las Vegas has four Sister Cities:

Angeles City, Philippines

An San, South Korea

Huludao, China

Phuket, Thailand

# Wagering

Betting exchanges | Bookmakers | Sports betting | Arbitrage betting | Bank job | Bar bet | Betting strategy | Calcutta | Daily double | Dutch book | Exacta | Fixed Odds Betting Terminals | Kelly gambling | Martingale | Nassau | Odds | Over-under | Parlay | Pick 6 | Proposition bet | Risk premium | SP bookmaking | Scientific wager | Simon-Ehrlich wager | Sucker bet | Superfecta

## Betting exchanges

A *betting exchange* is a p2p gambling website acting as a broker between parties for the placement of bets. The concept is similar to that of a stock exchange or a futures exchange, where in this case the commodity being traded is a bet, rather than a stock or futures contract. Most betting on a betting exchange is a form of fixed odds gambling.

### Contents

- 1 History
- **2 "Laying" an outcome**
- 3 Controversy
- 4 See also
  - 4.1 Betting exchanges

## History

The concept was first brought to the public by the UK website Flutter.com in May 2000 in person-to-person betting form, followed closely by UK-based Betfair in June 2000. Betfair embraced a pure exchange model - one Flutter later adopted and even improved upon in places - but first-mover advantage proved decisive for Betfair. Though Flutter managed to climb to a reported 30% market share, Flutter's backers were content to broker a merger which left Betfair the dominant partner by a reported ratio of 84:16. Post merger, Flutter's customers were transferred to Betfair's system, which was later upgraded to embrace some of Flutter's functionality. Betfair went from strength to strength and controls a reported 90% of global exchange activity today. In late 2004, Betfair announced a rescue package which resulted in it absorbing the customers of Sporting Options, which had gone into administration with debts in excess of £5 million.

As with other types of exchanges, betting exchanges thrive on liquidity and customers tend to focus on the exchange where they are confident their bet can be paired up with a matching counterbet. Breaking with British tradition, Betfair uses decimal odds instead of

fractional (traditional) odds because they are more popular globally. Some of its competitors allow customers to use fractional odds if they prefer.

Exchanges make their money by charging a commission which is calculated as a percentage of net winnings for each customer on each event, or market. Gamblers whose betting activities have traditionally been restricted by bookmakers (normally for winning too much money) have found these sites a boon since they are now able to place bets of a size unrestricted by the exchange - the only restriction is that one or more opposing customers need to be willing match their bets. Moreover, the odds available on a betting exchange are usually better than those offered by bookmakers in spite of the commission charged.

Exchanges have their limitations. Exchanges are not suited to unrestricted multiple parlay betting. Betfair does offer accumulators of their own content management construction, but these are limited in number. Users cannot determine the outcomes contained in accumulators themselves. Exchanges also tend to restrict the odds that can be offered to between 1.01 (1/100) and 1000 (999/1).

Unsurprisingly, Betfair's success has attracted a number of rivals.

## **"Laying" an outcome**

Exchanges also offer the opportunity to *lay* outcomes, which is to bet that a particular participant in an event will lose. This is the position bookmakers take when offering a bet for somebody to back that the participant will win.

For example, if someone thinks Team A will win a competition, he may wish to *back* that selection. A bookmaker offering the punter that bet would be *laying* that selection. The two parties will agree the backer's stake and the odds. If the team loses, the layer/bookmaker keeps the backer's stake. If the team wins, the layer will pay the backer winnings based on the odds agreed.

As every bet transacted requires a backer and a layer, and the betting exchange is not a party to the bets transacted on it, any betting exchange requires both backers and layers. Of course, the distinction is moot: A *layer* is always simply *backing* the opposite outcome. Laying the home team is the same as backing the visiting team to win or draw. Laying one horse in a race is just the same as backing all of the other horses to win.

## **Controversy**

The fact gamblers can now lay outcomes on the exchanges has resulted in criticism from traditional bookmakers including the UK's "Big Three" - Coral, Ladbrokes and William Hill. These firms argue that granting "anonymous" punters the ability to bet that an outcome will not happen is causing corruption in sports such as horse racing since it is much easier to ensure a horse will lose a race.

Exchanges counter that, while corruption is possible on any gambling platform, the bookies' arguments are motivated not by concern for the integrity of sport but by commercial interests. Exchanges also assert they are well aware of who their customers are and some have signed agreements with governing bodies of sport including the Jockey Club,



with whom they insist they will co-operate with fully if the latter suspects corruption to have taken place. In the summer of 2004, Betfair provided data to investigators, including the City of London Police which on September 1 lead to 16 arrests on charges related to race fixing. Among those arrested was champion jockey Kieren Fallon, whose case remains before the courts.

## See also

- Sports betting
- Bookmaker
- Gambling
- Parimutuel gambling
  - Spread betting

## Betting exchanges

- ABetX
- Betfair
- iBetx

# Bookmakers

A *bookmaker*, *bookie* or *turf accountant*, is an organisation or a person that takes bets and may pay winnings depending upon results and, depending on the nature of the bet, the odds. Bookmaking may be legal or illegal, and may be regulated; in the United Kingdom it was at times both regulated and illegal, in that licences were required but no debts arising from gambling could be enforced through the courts. Bookmaking is generally illegal in the United States, with Nevada being a notable exception.

In some countries, such as Singapore and Canada, the only legal bookmaker is state-owned and operated. In Canada, this is part of the lottery program and is known as Sport Select.

Most bookmakers in the USA bet on college and professional sports, though in the UK they offer a wider range of bets, notably on political elections. The probability that it will snow on Christmas day is another common event for betting in the UK.

By adjusting the odds in his favour or by having a point spread, the bookmaker will aim to guarantee a profit by achieving a 'balanced book', either by getting an equal number of bets for each outcome, or (when he is offering odds) by getting the amounts wagered on each outcome to reflect the odds. When a large bet comes in, a bookmaker can also try to lay off the risk by buying bets from other bookmakers. The bookmaker does not generally attempt

to make money from the bets themselves, but rather profiting from the event regardless of the outcome.

Traditionally, bookmakers have been located at the racecourse, but improved TV coverage and laxer laws have allowed betting in shops and casinos in most countries. In the UK, bookies still chalk up the odds on boards beside the race course and use tic-tac to signal the odds between their staff and to other bookies.

In 1961, Harold Macmillan's Conservative Government legalized betting shops and tough measures were enacted to ensure that bookmakers remained honest. A large and respectable industry has grown since. At one time there were over 15,000 betting shops in the U.K. Now, through consolidation, they have been reduced to about 8,500. Currently there are four major bookmakers in the United Kingdom: William Hill, Ladbrokes, Coral, and state-owned ToteSport.

Increasingly, gamblers are turning to the use of betting exchanges which automatically match Back and Lay bets between different bettors, thus effectively cutting out the bookmaker's traditional profit margin. Some bookmakers have even taken to using betting exchanges as a way of laying off unfavourable bets and thus reducing their overall exposure.

Sometimes, savvy individuals set up an illegal book in an attempt to make money - a scene often seen in films, sitcoms and so on. One of the most infamous real-life illegal bookmakers was Robert Angleton of Houston, Texas. Not only was he a bookie, but he also was a police informant about his smaller rivals. When they were shuttered, he took their business. His bookmaking scheme ended with the death of his wife, Doris Angleton.

## See also

- Gambling
- Fixed-odds gambling
- Bet exchange
- Sports betting
- Vigorish
- Sportsbook

## Sports betting

*Sports betting* is the general activity of predicting sports results by making a wager on the outcome of a sporting event. Perhaps more so than other forms of gambling, the legality and general acceptance of sports betting varies from nation to nation. In North America, for example, sports gambling is generally forbidden, while in many European nations, bookmaking (the profession of accepting sports wagers) is regarded as an honorable occupation and, while highly regulated, is not criminalized. Proponents of legalized sports betting generally regard it as a hobby for sports fans that increases their interest in particular sporting events, thus benefitting the leagues, teams and players they bet on through higher

attendances and television audiences. Opponents fear that, over and above the general ramifications of gambling, it threatens the integrity of amateur and professional sport, the history of which includes numerous attempts by sports gamblers to fix matches, although proponents counter that legitimate bookmakers will invariably fight corruption just as fiercely as governing bodies and law enforcement do.

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## Types of bets

Aside from simple wagers--betting a friend that one's favorite baseball team will win its division, for instance, or buying a football "square" for the Super Bowl--sports betting is commonly done through a bookmaker. Legal sports bookmakers exist throughout the world (perhaps most notably in Las Vegas). In areas where sports betting is illegal, bettors usually make their sports wagers with illicit bookmakers (known colloquially as "bookies") and on the Internet, where thousands of online bookmakers accept wagers on sporting events around the world. (In the United States, the legality of Internet wagering is ambiguous, due to the fact that online bookmakers generally operate outside of the U.S. Many online bookmakers do not accept wagers from the U.S. due to these unresolved legal questions.) The bookmaker earns a commission or "vigorish" by regarding the money at risk as less than the size of the bet placed. A common line is a \$110 bet on a fair coin which pays \$210 to win and \$0 to lose. On this line, it costs \$220 to bet both sides of the same coin simultaneously, but the combined bet always pays \$210. The \$10 loss constitutes the vig. There are opposing positions on whether the winner or loser can be construed as paying the vig, but this debate is not especially meaningful. If you view \$110 to win \$210 on a fair coin as \$100 at risk, then it will appear as if the loser pays the vig; if you view the same line as \$110 at risk, then it will appear as if the winner pays the vig. It happens that standard practice among bookies is to adjust odds so the amount at risk remains constant from the winning side of the proposition, hence the common perception that the loser pays the vig. Vigs expressed as percentages suffer from the same perceptual bias. On the line as given in this example, for a fair coin, the bookie has an expectation of making \$5 for each \$110 bet placed, which is often divided out and expressed as 4.5%. Odds on teams or opponents are quoted in terms of the favorite (the team that is expected to win, thus requiring a riskier wager) and the underdog.

Bookmakers generally offer two types of wagers on the winner of a sporting event: a straight-up or money line bet, or a point spread wager. Moneylines and straight-up prices are used to set odds on sports such as soccer, baseball and hockey (the scoring nature of

which renders point spreads impractical) as well as individual vs. individual matches, like boxing. For these sports, bookmakers in Europe and Asia generally use straight-up odds, which are quoted based on a payout for a single bet unit; for example, a 2-1 favorite would be listed at a price of 1.50, whereas an underdog returning twice the amount wagered would be listed at a price of 3.00.

American bookmakers generally use moneylines, which are quoted in terms of the amount required to win \$100 on a favorite, or the amount paid for a \$100 bet on an underdog. The amount "won" in a bet is the net amount over and above the initial bet. If a person wins \$200 on a bet of \$100, the bookmaker actually pays the winner \$300 (i.e. \$200 plus the initial bet of \$100).

For example, a baseball game between the St. Louis Cardinals and Chicago Cubs might have a moneyline on St. Louis (the favorite) at -200 and Chicago (the underdog) at +180. A bettor looking to take St. Louis must risk \$200 for every \$100 he wishes to win over and above the initial \$200 bet. A person wagering on Chicago will win \$180 for every \$100 he bets.

The +180 moneyline on Chicago includes a 20 cent "dime line". Bookmakers generally use a "dime line" with moneylines to calculate the vigorish they receive on losing wagers. Without the 20 cent dime line in the example above, the Chicago moneyline would be +200.

For favorites of -120 to -150, the difference between the favorite and underdog is 10 cents; i.e., the underdog to a -120 favorite is priced at +110. The discrepancy between prices rises for favorites of -160 or higher.

Unlike point spread bets, a moneyline wager requires only that the team wagered upon win the match. In sports such as baseball, where certain teams can be heavy favorites against weaker opponents (sometimes as much as -350 or higher), the moneyline system requires that a hefty sum be risked on the favorite, while enticing underdog players with a higher payout.

In sports such as basketball and American football, rather than varying the money odds (which can be substantial in lopsided matches), the point spread is used. A point spread wager typically requires a bettor to risk \$110 to win \$100, the extra \$10 being the bookmaker's vigorish if the wager loses. However, bettors backing the favorite collect only if their team wins by more than a specific victory margin, which is set at the time of the wager. Similarly, underdog bettors can collect even when their team loses, as long as they cover the point spread by losing by fewer points than were quoted by the bookmaker. For example, suppose that a college football game between Oklahoma and Kansas had Oklahoma as a 27 point favorite (quoted as Oklahoma -27, or Kansas +27):

- If Oklahoma defeats Kansas by *more than* 27 points, bettors on Oklahoma would receive \$100 on a \$110 bet. Kansas bettors lose the \$110 they wagered.
- If Kansas defeats Oklahoma, bettors on Kansas would receive \$100 on a \$110 bet. Oklahoma bettors lose the \$110 they wagered.
- If Kansas loses by *less than* 27 points, they have covered the spread. Bettors on both sides are then treated exactly as if Kansas had won the game.
- If Oklahoma wins by *exactly* 27 points, the wager is called a "push", and neither side wins. Standard practice by U.S. bookmakers is to return the stakes of

all bettors on the game in full. To prevent pushes and ensure that they receive their commission on losing wagers, bookmakers often set point spreads that include a half-point.

Another common wager available for sporting events involves predicting the combined total score between the competing teams in a game. Such wagers are known as "totals" or "over/unders." For example, the Oklahoma/Kansas football game described above might have a total of 55 points. A bettor could wager that both teams will combine for over 55 points, and play the "over." Or, she could predict that the score will fall under this amount, and play the "under." As with point spreads, bookmakers frequently set the totals at a number involving a half-point (i.e., 55.5), to reduce the occurrence of pushes.

Many bookmakers offer several alternative bets, including the following:

- Proposition bets. These are wagers made on a very specific outcome of a match. Examples include guessing the number of goals each team scores in a soccer match, betting whether a wide receiver in a football game will net more or less than a set amount of total yardage, or wagering that a baseball player on one team will accumulate more hits than another player on the opposing team.
  - Parlays. A parlay involves multiple bets (usually up to 12) and rewards successful bettors with a large payout. For example, a bettor could include four different wagers in a four-team parlay, whereby he is wagering that all four bets will win. If any of the four bets fails to cover, the bettor loses the parlay, but if all four bets win, the bettor receives a substantially higher payout (usually 10-1 in the case of a four-teamer) than if he made the four wagers separately.
  - Run line, puck line or goal line bets. These are wagers offered as alternatives to straight-up/moneyline prices in baseball, hockey or soccer, respectively. These bets feature a fixed point spread that offers a higher payout for the favorite and a lower one for the underdog. For example, the above-described Cardinals/Cubs baseball game might offer a run line of St. Louis -1.5 (+100) and Chicago +1.5 (-120). A bettor taking St. Louis on the run line can avoid risking \$200 to win \$100 on the moneyline, but will collect only if the Cardinals win by 2 runs or more. Similarly, a run line wager on the Cubs will pay if Chicago loses by no more than a run, but it requires the bettor to risk \$120 to win \$100.
  - Future wagers. This bet predicts a future accomplishment by a team or player. One example is a bet that a certain NFL team will win the Super Bowl for the upcoming season. Odds for such a bet generally are expressed in a ratio of units paid to unit wagered. The team wagered upon might be 50-1 to win the Super Bowl, which means that the bet will pay 50 times the amount wagered if the team does so.
- **See also** Sports betting systems

## Bookmaking

Most people believe that bookmakers attempt to "balance" their action, by adjusting their prices so that they get the same amount of money on both sides of a game. Theoretically, the bookmaker's only financial interest in the bets it accepts is the vigorish it takes from losing

wagers, and it simply wants to ensure that the amount of wagers on each side is equal. In reality, however, bookmakers attempt to maximize their bottom line. While having an exactly equal amount of money wagered on each contestant would guarantee themselves a profit and eliminate their risk, that won't necessarily maximize their bottom line. They can make more money when they accept bets at odds which are "inflated" from those which are likely to occur. So for example, if the majority of their customers are going to bet on a team regardless of the price, they will set the price as high as possible. This is called "shading" the line. Generally, the public prefers to back the favorite, and unsophisticated bettors often show up during large events such as the Final Four and the Super Bowl. Some bookmakers actually offer different prices to different customers, using past bets as an indicator of who the customer will bet on as a way of additionally increasing their potential profit.

With a match offering a point spread, however, bookmakers must be careful of moving the line too much. Assume, for example, that a large number of Oklahoma bettors caused the line to be moved from 27 points all the way to 29 points. If Oklahoma won the game by 28 points, the bookmaker would have to pay both those who wagered that Oklahoma would win by 27 and those who took Kansas on the 29 point spread. Bookmakers refer to such an event as "being muddled." This famously occurred in the 1979 Super Bowl between the Pittsburgh Steelers and Dallas Cowboys, which American bookmakers still remember as "Black Sunday." For that game, bookmakers opened Pittsburgh as a 3.5 point favorite, and the line closed just before kickoff at Pittsburgh -4.5. Pittsburgh won the game 35-31, enabling both those who took the Steelers -3.5 and those who wagered on the Cowboys +4.5 to collect.

Sometimes, a point spread is set at an amount that equals a common margin of victory for a particular sporting event. For instance, American football games are often decided by 3 points (the amount awarded for a field goal) or 7 points (the amount awarded for a touchdown with a successful extra-point attempt). In the case of a football game where the favorite is -7, moving the line up or down would likely result in a middle if the favorite wins by exactly 7 points. In this situation, the bookmaker may choose to adjust the vigorish in response to unbalanced action, rather than move the point spread. If the 7 point favorite is getting the most wagers, a bookmaker may change the vigorish on that team from -7 (-110) to -7 (-120), and move the underdog to +7 (+100). Once this occurs, bettors looking to wager on the favorite must risk \$120 for every \$100 they wish to win, while underdog players will get even money for every dollar they wager.

A bookmaker's line can be influenced by one or several large wagers made on a match. Bookmakers pay particular attention to the bets of a professional sports gambler, commonly known within the industry as a "sharp" or "wiseguy." Some bookmakers will not accept bets from bettors they believe fit in this category. As a result, professionals use "beards" to make the bets for them. Groups of professionals who work together are known as a "syndicate." These syndicates will often place large wagers with several books simultaneously, causing the prices to move quickly. Observers refer to these fast line movements as "steam."

Conversely, bettors who are primarily recreational are referred to as "squares". Online, there are certain betting shops that cater more towards sharps and those toward squares. Shops that cater towards professionals generally have higher (or no) upper betting limits and offer lower vigorish, while making some of the money back on fees for withdrawals or minimum bets. Meanwhile, "square" shops generally have lower betting limits and offer more signup bonuses. In return, they charge the standard 11-to-10 vigorish, and offer worse

moneylines than the "sharp" shops. In many of the minor sports, sharps make up the majority of bettors, while for large public sporting events such as the NCAA Men's Division I Basketball Championship and the Super Bowl, recreational bettors make up almost 90% of the betting action at sportsbooks, and are the top betting events both in Nevada and online.[1]

Because of how lines move quickly during sporting events, arbitrage betting is possible. Theoretically, this will guarantee a small profit of 3-6% when a person bets on one line at one shop and on the opposite line at another shop. However, a large sum of capital is required for the amount of reward, and great care must be exercised to avoid accidentally betting on the same side at both shops. Arbitrage situations are commonly found during halftime and intermission periods, where there is a limited amount of time for each bookmaker to determine the line and accept bets.

The Federal Wire Act of 1961 was an attempt by the US government to prevent illegal bookmaking.

## **Betting scandals**

Historically, sports betting has been associated with a number of unsavory characters, which has a lot to do with its desultory legal treatment throughout the world. Organized crime notoriously has relied upon sports betting for money laundering or funding purposes. The corruption or threat of a boxer to take a dive at the x round is a frequent theme in mafia-related movies. All of the American professional sports leagues, as well as the National College Athletic Association (NCAA), take stringent measures to disassociate themselves from sports gambling. Nevertheless, sports history is riddled with several incidents of athletes conspiring with gamblers to fix the outcomes of sporting events, or criminals acting against athletes whose on-field performance affected their wagers.

- In 1919, gamblers bribed several members of the Chicago White Sox to throw the World Series. This became known as the Black Sox Scandal and was recounted in book and movie form as "Eight Men Out".
- In 1978, mobsters connected with the New York Lucchese crime family, among them Henry Hill and Jimmy Conway, organized a point shaving scheme with key members of the Boston College basketball team.
- Andrés Escobar, a Colombian defender, was murdered shortly after his return from the 1994 World Cup, where he scored an own goal, the first of a 2-1 defeat to the USA that knocked out the Colombians at the first phase. In the most believed explanation, the Medellín drug cartel bet large sums of money that Colombia would advance, and blamed the Medellín-born Escobar for the loss.[2]
- In 1994, a comprehensive point shaving scheme organized by campus bookmaker Benny Silman and involving players from the Arizona State University men's basketball team was uncovered with the assistance of Las Vegas bookmakers, who grew suspicious over repeated large wagers being made against Arizona State.[3]

- On 10 February 1999, a plot to disable the floodlights of The Valley during a Charlton-Liverpool match was discovered. Three individuals were arrested, and the scam tracked to Malaysia, where the Premiership is very popular, and bets frequent.[4]

- In early 2000, Hansie Cronje, then highly-regarded captain of the South African cricket team, rocked the cricketing world with frank admissions of match-fixing. Hansie admitted to receiving more than \$140,000 USD from London-based bookies to influence aspects of his team's performance. For example, he convinced Herschelle Gibbs to score less than 20 runs in a One Day International for a \$15,000 USD reward. Hansie received a lifetime ban from any involvement in professional cricket but he maintained throughout his numerous trials that he never conspired to fix overall match results. He died tragically in a plane crash in 2002, leaving behind many unanswered questions and a tainted legacy.

- In late 2004, the game between Panionios and Dinamo Tbilisi in the 2004-05 UEFA Cup was suspected of being fixed after British bookmakers detected an unusually high number of half-time bets for a 5-2 win for the Greek side, which was trailing 0-1. As the final result ended up being 5-2, suspicions of fixing quickly emerged, but were quickly denied by both clubs, although UEFA started an investigation. [5]

- The Italian Football Federation said in October 2000 it had found eight players guilty of match-fixing. Three were from Serie A side Atalanta and the other five played for Serie B side Pistoiese. The players were Giacomo Banchelli, Cristiano Doni and Sebastiano Siviglia (all Atalanta) and Alfredo Aglietti, Massimiliano Allegri, Daniele Amerini, Gianluca Lillo and Girolamo Bizzarri (all Pistoiese). The charges related to an Italian Cup first round tie between the two sides in Bergamo on August 20, 2000 which ended 1-1. Atalanta scored at the end of the first half and Pistoiese equalised three minutes from full time. Atalanta qualified for the second round. Snai, which organises betting on Italian football, said later it had registered suspiciously heavy betting on the result and many of the bets were for a 1-0 halftime score and a fulltime score of 1-1.

- In early 2005, the German Football Association (DFB) revealed that referee Robert Hoyzer was under investigation for suspected betting on a first-round German Cup tie between regional league side Paderborn and Bundesliga club Hamburger SV in August 2004, and possibly fixing the match. In the match, HSV took a 2-0 lead, but Hoyzer sent off HSV striker Emile Mpenza in the first half for alleged dissent (a sending-off that many observers considered unwarranted), and later awarded Paderborn two dubious penalties. Paderborn went on to win 4-2. Several days later, Hoyzer admitted to having fixed that match, as well as several others he worked. He went on to implicate other referees and several players in the scandal. Hoyzer himself was arrested on February 12 after evidence emerged that he may have fixed more matches than he had admitted to fixing. On February 16, UEFA announced that it would send an investigator to Athens to investigate possible links between this scandal and the aforementioned Panionios-Dinamo UEFA Cup tie. Eventually, Hoyzer was sentenced to 2 years



and 5 months in prison. The Croatian betting syndicate which had paid Hoyzer to fix matches was also found to be linked to the Panionios-Dinamo match.

- In late September 2005, two referees (Edilson Pereira de Carvalho and Paulo Jose Danelon) were accused of fixing several matches in the São Paulo championship for an internet betting ring that moved over USD100,000 on each match day, receiving around USD 4,400 for each match [6]. In the following days, Armando Marques, president of the national commission of referees resigned and Nagib Fayad and Vanderlei Pololi, two businessmen, were arrested as suspects of working as middlemen between the referees and the corruption ring. In early October, a court ordered that the matches where Carvalho was the referee would have to be replayed and free to the public. No decision was made about Danelon's matches.

## **Sports betting forums**

The Internet not only revolutioned the ability to bet online, but also the ability to communicate with like-minded bettors. Sports betting forums offer lively give and take where bettors discuss their predictions about games and help one another decide on profitable bets.

## **Betting in fiction**

In the 1989 film Back To The Future Part II, after Marty and Doc travel to 2015, the old Biff Tannen takes a Sports Almanac back in time to give it to himself in 1955, advising his younger self to use it for betting on any forthcoming sports events up until 2000. Younger Biff does and becomes a millionaire, which creates an altered version of time which Marty and Doc encounter when they return to 1985. In order to restore the damage done from the bets, they need to travel to 1955 and destroy the almanac before it is ever used.

## Notes

1. ^ Covers.com: Squares drive betting Madness
2. ^ Sports Illustrated: Andres Escobar
3. ^ Sports Illustrated: Silman gets 46 months for his part in ASU point-shaving scandal
4. ^ BBC: Bad bets and blown lights
5. ^ UEFA.com: UEFA investigates fix claims
6. ^ ESPN: Brazilian referee arrested

## Asian handicap

An *Asian Handicap* is a sports betting term used to describe spread betting in football (soccer). Described as Asian because of its Eastern origins, the phrase has little else to do with the region. This form of soccer betting has gained increased popularity over the last few years and is now offered by a variety of mainstream bookmakers.

Football bets can be made using a few different formats. From a gambler's standpoint, Asian handicap odds provide many benefits. For starters, the Asian handicap system eliminates any chance for loss due to a tie, which increases the gamblers chances of success. Secondly, bookmakers typically charge less Vigorish than with other bets.

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- 2 Example
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- 4 Whole Handicaps and Ties

## Description

Soccer is one of the few sports in the world where a tie is a fairly common outcome. With traditional fixed odds, ties are treated as an additional outcome to the game. In other words, bettors lose when they place a wager on either team to win and the game ties. With Asian Handicaps, however, the chance for a tie is eliminated by use of a handicap that forces a winner. This creates a situation where each team has a 50-50 chance of winning; similar to the odds for a basketball or baseball game where a tie is impossible.

This system works in a straight-forward manner. The bookmakers's goal is to create a handicap or "line" that will make the chance of either team winning (considering the handicap) as close to 50% as possible. Since the odds are as close to 50% as possible, bookmakers offer payouts close to even money, or 1.90 to 2.00. Asian Handicaps start at a quarter goal and can go as high as 2.5 or 3 goals in matches with a huge disparity in ability.

What makes Asian Handicaps most interesting is the use of quarter goals to get the "line" as close as possible. Taken in conjunction with the posted total for the game, the handicap essentially predicts the game's final score. Take a look at this example:

## Example

Match: Everton vs. Newcastle United

Handicap: 0 : 1 1/2

Explained: This handicap states that Everton is "giving" Newcastle one and one half goal for the match.

This means is that Newcastle is starting the game with a 1.5-0 lead. If the final score of the game is 2-1, then a bet on Newcastle wins the with the final score (considering handicap) as 2-2.5.

## Quarter Handicaps

Subsequently, many matches are handicapped in 1/2 and 1/4 intervals; both of which eliminate the possibility of a tie since no one can score a half-goal. Quarter (1/4) handicaps split the bet between the two next closest 1/4 intervals. For instance, a \$1000 bet with a handicap of 1 3/4 is the same as betting \$500 at 1 1/2 and \$500 at 2. With 1/4 handicap bets, you can win and tie (win 1/2 of wager) or lose and tie (lose 1/2 wager).

## Whole Handicaps and Ties

Handicaps that are whole numbers still allow for the possibility of a tie. Sportsbooks will refund both bets in the event of a game tied by the handicap.

**Categories:** Sports betting

# Football pools

*Football pools*, often referred to as "The Pools", are competitions based on predicting the outcome of association football matches set to take place in the coming week.

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## British Pools

Several different companies such as Littlewoods, Vernons, Zettlers and Brittens have organised similar games, the most famous of which was historically known as *Treble Chance*. Competitors were given a list of football matches set to take place over the coming week, and attempted to pick a line of eight of them whose results would be worth most points by the scoring scheme, traditionally by crossing specific boxes on a printed coupon. A proportion of the players' combined entry fees were distributed among the competitors whose entries were worth the highest scores.

## Entries

Entries were traditionally entered by post or via members of the public acting as Agents or Collectors. Collectors walked a route door to door, delivering forms and cash to a central office, taking a percentage of the money as a fee. Legally they were agents of the entrants, not the pools company. There have been a few cases whereby a rogue Agent has fraudulently withheld players' stake money, even though one entrant had actually chosen a set of jackpot-winning fixtures. These days, Internet applications are also accepted.

Business for Collectors was drummed up by "canvassing", where a team of company agents knocked on doors in an area of a town or housing estate.

## Scoring

Scoring schemes varied over the years. The current Treble Chance games use a scoring scheme which awards three points to score draws (matches where both team scored the same, strictly positive, number of goals), two points to no-score draws (matches where neither team scored a goal) and one point to both home wins (matches where the home team scored more goals than the away team) and away wins (matches where the away team scored more goals than the home team). The most famous historical scoring scheme differentiated between home wins and away wins, awarding one and a half points for games resulting in away wins. A scoring scheme used for only one year split score draws into two categories, awarding three points only for matches ending 1-1 and two and a half points for higher-scoring score draws.

The total score of each line would be calculated, up to a maximum of 24 points. The highest scoring line achieved by any player in that particular week's competition would be

declared to be worth the *top dividend*, with a large proportion of the prize pool awarded to the players responsible for submitting the highest-scoring lines. Large football pools would award second and subsequent dividends, splitting smaller proportions of the prize pool among players who had submitted lines scoring nearly as many points; at its peak, the Littlewoods Treble Chance game would offer up to six dividends.

During the summer, when football leagues were not in operation in the United Kingdom, competitions were based on the results of football matches taking place in Australia. Matches which were postponed would often have their results adjudicated, for the sake of the football pools results, by a board known as the Pools Panel; The Times reports that the Pools Panel was formed in 1963 when a particularly cold winter scrapped football for three weeks running. Panel members included retired footballers with international experience and retired referees.

## Results

Before their popularity dwindled, pools results were published in most national newspapers a day or two after the Saturday on which the matches were played. Grids marking the points totals per game were sometimes published, against which your pools coupon could be aligned to read off the scores.

The BBC television programme *Grandstand* used to broadcast the winning match numbers and any Pools Panel verdicts as part of its Final Score segment in the late afternoon. Remarkably, only two people have so far announced the classified football results on the programme since its inception in 1958 - Len Martin until his death in 1995 and, since then, Tim Gudin.

With scores being read out on radio and television it was also common to relay the message "claims by telegram" for days when a few draws occurred (with correspondingly few winners), through "claims by registered mail only" for days when more winners were expected, to "no claims" when there were likely to be so many claimants that the mail would have been overwhelmed.

## Winning

Typically a fraction of a penny would be charged for each line entered, though players often had the option to play each line at a higher stake and so receive a higher share of the pool should their line prove a winner. Accordingly, players would usually submit many different lines in a single entry. Popular ways to do this were "full perm" entries, where 10 (or 11, or more) matches were selected and every possible combination of eight matches selected from the ten (etc.) was entered as a single line. As there are  $C(10,8) = 45$  ways to select eight matches from ten, the cost of such an entry was 45 times the cost of entering a single line. Note that the term "perm" was used despite the relevant mathematical operation being combination rather than permutation, as the order in which the eight matches were selected was irrelevant. The pools companies, many daily newspapers, and the sporting

press also issued "plans", which were subsets of full perms: these enable the punter to cover more matches for the same stake, with the proviso that even if 8 draws were in the selections, they might not all be in a single line of the plan (but well designed plans could give a guarantee something like 'if the plan hits 8 draws it must win at least a 3rd dividend').

The largest prizes would be awarded when only one line was entered scoring the maximum number of points; typically this would occur when only eight or nine matches ended in score draws, so only one player would have the line scoring the maximum. These biggest jackpot prizes could be several hundred thousand pounds, sometimes even more than a million. Prizes depended on the number of players and the cost per line, which varied over the years; one winner, Viv Nicholson, gained notoriety by declaring she was going to "spend, spend, spend" after winning GBP 152,319 in 1961. The story of her subsequent divorces, remarriages, extravagance and eventual bankruptcy was eventually made into a musical named after the famous quote.

At the other extreme, payouts of less than a pound were quite common in lower dividends when many entries won. Most "punters" could expect to receive at least one low payout if they played for long enough.

## History

Littlewoods football pools was founded in 1923, Vernons in 1925, Zetters in 1933, and Brittens in 1946. The Treble Chance game was also inaugurated in 1946.

The popularity of the Treble Chance game was due to the fact it offered a potential single large jackpot at a time when no other form of gambling in the United Kingdom did; premium bonds were not offered until 1957 and never offered a jackpot which was as high. The popularity of football pools in the UK declined dramatically after the introduction of the National Lottery in 1994, which offered larger jackpots still. Some football pools offer additional ways to win based on scores of football matches at half-time, or football matches in which particularly many goals are scored.

The football pools did not fall under gambling legislation because they claimed to be competitions of skill, rather than chance; however, their rules typically stated that all transactions were "binding in honour only". Typically, between one quarter and one half the entry fees taken would be returned to the players as prizes. Companies organising football pools were heavily taxed; in 1991, the level of tax levied was reduced from 40% of turnover to 37½% of turnover. Additionally, from 1975 on, 2½% of the entry fees went to form the Football Trust which distributed money to football throughout the UK, most famously to help clubs redevelop their stadiums in line with the recommendations made by the Taylor Report.

The Littlewoods Football Pools Collection which shows the history of the pools, is held by the National Football Museum.

## Other games

Other games offered by football pools companies take the form of "8 homes", "4 draws", "5 aways" or the like, where lines consisting of a smaller number of matches are selected and a line is deemed to have won if all the selected matches result in home wins, away wins or draws (irrelevant of the size of the draw) respectively. The cost per line is generally higher; because these attract far fewer players, prizes are generally lower. Some football pools companies additionally organised lotteries, betting on lottery results or spot the ball competitions at various points.

## Continental European Pools

Similar football pools competitions are frequently known as *toto* competitions on Continental Europe. While the principle of requiring entrants to predict the results of football matches in advance remains the same, the details are fundamentally different. The name *toto* derives from totalisator machines which are used to process the parimutuel betting involved.

Typically, a list of 13 matches for the coming week will be given. Pools entrants have to select the result of each one, whether it will be a home win, an away win or neither of these, typically by marking each match with either a 1, a 2 or a N (sometimes X). It is possible to enter two or three results for one or more matches, in which case the entry is treated as a number of separate entries for all possible combinations given; marking two possible results for each of five matches and all three possible results for each of four matches will result in submitting  $2 * 2 * 2 * 2 * 2 * 3 * 3 * 3 * 3 = 32 * 81 = 2592$  different entries. All entries submitting 13 correct predictions will be declared to have won the top prize; sometimes, prizes for fewer correct predictions are also awarded.

The Intertoto Cup competition was inaugurated by the football pools companies of central Europe to provide matches for their toto coupons during the summer months.

## See also

- Betting

**Categories:** Sports betting

## Parimutuel betting

*Parimutuel betting* (from the French language: pari mutuel, mutual betting) is a betting system in which all bets of a particular type are placed together in a pool; taxes and a house *take* are removed, and payoff odds are calculated by sharing the pool among all placed bets.

The parimutuel system is used in gambling on horse racing, greyhound racing, jai alai, and all sporting events of relatively short duration in which participants finish in a ranked order. A modified parimutuel system is also used in some lottery games such as Lotto South.

Parimutuel gambling is frequently state-regulated, and offered in many places where gambling is otherwise illegal. Parimutuel gambling is often also offered at "off track" facilities, where players may bet on the events without actually being present to observe them in person.

Parimutuel betting differs from fixed odds betting in that the final payout is not determined until the pool is closed – in fixed odds betting, the payout is agreed at the time the bet is sold.

## Contents

- 1 Example of parimutuel betting
- 2 History of parimutuel betting
- 3 Parimutuel bet types
- 4 Strategy and comparison with independent bookmakers
- 5 See also

## Example of parimutuel betting

Consider a hypothetical event in a country using a decimal currency such as dollars which has 8 possible outcomes. Each outcome has a certain amount of money wagered:

Outcome 1 – \$30.00  
Outcome 2 – \$70.00  
Outcome 3 – \$12.00  
Outcome 4 – \$55.00  
Outcome 5 – \$110.00  
Outcome 6 – \$47.00  
Outcome 7 – \$150.00  
Outcome 8 – \$40.00

Thus the total pool of money on the event is \$514.00. Following the start of the event, no more investments are accepted. The event is decided and the winning outcome is determined to be Outcome 4 with \$55.00 invested. The payout is now calculated. First the commission or take for the wagering company is deducted from the pool, for example with a commission rate of 14.25% the calculation is:  $514 - 0.1425 * 514 = 440.76$ . The remaining amount in the pool is now distributed to those who invested in Outcome 4:  $440.76 / 55 = 8.00$  per \$1.00 invested. Thus, in decimal odds, outcome 4 is said to pay out \$8.00.

Often at certain times prior to the event, betting agencies will provide approximates for what should be paid out for a given outcome should no more bets be accepted at the current



time. Using the example above, an approximate table using the same commission rate in decimal odds would be:

Outcome 1 – \$14.69  
Outcome 2 – \$6.30  
Outcome 3 – \$36.73  
Outcome 4 – \$8.00  
Outcome 5 – \$4.00  
Outcome 6 – \$9.38  
Outcome 7 – \$2.94  
Outcome 8 – \$11.02

In real-life examples such as horse racing, the pool size often extends into millions of dollars with many different types of outcomes (winning horses) and complex commission calculations.

Sometimes the amounts paid out are rounded down to a denomination interval – in the United States and Australia, 10 cent intervals are used. The rounding loss is sometimes known as breakage and is retained by the betting agency as part of the commission.

## **History of parimutuel betting**

The parimutuel system was invented by Parisian perfume maker Pierre Oller in 1865 when asked by a bookmaker friend to devise a fair system for bettors which guarantees a fixed profit for the bookmaker.

The large amount of calculation involved in this system led to the invention of a specialized mechanical calculating machine known as a totalisator, "automatic totalisator" or "tote board". The first was installed at Ellerslie Racecourse, Auckland, New Zealand in 1913, and they came into widespread use at race courses throughout the world (the U.S. introduction was 1933 at Arlington Park, near Chicago, IL USA).

## **Parimutuel bet types**

There may be several different types of bets, in which case each type of bet has its own pool. The basic bets involve predicting the order of finish for a single participant, as follows:

In North America

- Win - A first place finisher wins the bet.
- Place - Either a first or a second place finisher wins the bet (at most tracks the race must have at least four runners in it for place betting to be conducted).
- Show - First, second, or third place finisher wins the bet (at most tracks the race must have at least five runners in it for show betting to be conducted).
- Across the Board: A combination triple-bet of Win, Place, and Show

In Australia

- Win - Runner must finish first.
- Place - Runner must finish first, second or third place. (In events with five to seven runners, no dividends are payable on third place ("NTD" or No Third Dividend) and in events with 4 or less runners, only Win betting is allowed).
- Each-way - A combination of Win and Place. A \$5 bet Each-way is a \$5.00 bet to Win and a \$5.00 bet to Place, for a total bet cost of \$10.

In Ireland and the United Kingdom

- Win - Runner must finish first.
- Place - Runner must finish within the first two places (in a 5-7 runner race), three places (8-15 runners) or four places (16+ runners).
- Each-way - Charged and settled as one bet to win and another bet to place (if asking for a bet of "five pounds each way" you will be expected to pay ten pounds).

Depending on the facility rules, which might vary from event to event, other bets may also be offered which allow the user to pick the finish of more than one participant, or more than one event. These are called *exotics*, and generally pay higher dividends. However, the facility's take is usually higher for these bets as well. The major exotics (in North America and Australia) are:

- Exacta (exactor, perfecta) - Picks the first and second place finishers, in order.
- Quinella - Picks the first and second place finishers, in either order.
- Trifecta (trifactor) - Picks the first, second, and third place finishers, in order.
- Superfecta - First four finishers in order.
- Daily/Extra Double - Picks the first place finishers in two different events.
- Quadrella - First in four consecutive races.
- Pick 3 and pick 4 - first in three or four consecutive races, not necessarily the first three or four races of the day. Some tracks offer a "rolling pick 3," on the first three races, the second through fourth, third through fifth, and so on.
- Pick 6 (jackpot) - Picks the winners in six consecutive events.

## Strategy and comparison with independent bookmakers

Unlike many forms of casino gambling, in parimutuel betting the gambler bets against other gamblers, not the house. The science of determining the outcome of a race is called handicapping.

It is possible for a skilled player to win money in the long run at this type of gambling, but overcoming the deficit produced by taxes, the facility's take, and the breakage is difficult to accomplish and few people are successful at it.

Independent off-track bookmakers have a smaller take and thus offer better payoffs, but they are illegal in some countries. However, with the introduction of Internet gambling has come "rebate shops". These off-shore betting shops in fact return some percentage of every bet made to the bettor. They are in effect reducing their take from 15-18% to as little as 1 or 2%, still ensuring a profit as they operate with minimal overhead. Rebate shops allow skilled horseplayers to make a steady income.

## See also

- Bet exchange
- Bookmaker
  - Spread betting

**Categories:** Sports betting

## Point shaving

*Point shaving*, in organized sports, is a type of match fixing where the perpetrators try to prevent a team from covering a published point spread. Unlike other forms of match fixing, sports betting invariably motivates point shaving. A point shaving scheme generally involves a sports gambler and one or more players of a sports team. In exchange for a bribe, the player or players agree to ensure that their team will not cover the point spread. The gambler then wagers against that team.

Point shaving occurs most frequently in amateur and collegiate sports, whose athletes are presumably more vulnerable to a gambler's bribery than professionals. Professional-level players earn significant sums of money each year, whereas collegiate players are prevented by strict regulations from earning compensation for their play.

Basketball is a particularly easy medium for shaving points because of the scoring tempo of the game and the ease by which one player can influence key events. By deliberately missing shots or committing well-timed turnovers or fouls, a corrupt player can covertly ensure that his team fails to cover the point spread, without causing them to lose the game (or to lose so badly that suspicions are aroused). Although the NCAA has adopted a zero tolerance policy with respect to gambling activity by its players, some critics believe it unwittingly encourages point shaving due to its strict rules regarding amateurism, combined with the large amount of money wagered on its games.

## Point shaving perpetrators

Henry Hill  
Benny Silman  
Stevin Smith  
Richie Perry  
Matthew Wood

## References in popular culture

The 1974 movie *The Longest Yard* features a main character, Paul Crewe, who is thrown out of the NFL for point shaving. There was also a remake of *The Longest Yard* in 2005 starring Adam Sandler.

In an episode of *The Sopranos*, "The Rat Pack", it is mentioned that New York mob boss Carmine Lupertazzi invented point shaving.

## See also

- sports betting

**Categories:** Sports betting

## Soft lines

*Soft lines* is a betting terminology representing betting odds that have been poorly researched by sportsbooks.

Handicappers commonly use this term to emphasize the value of their play. Since handicappers can focus on a smaller subset of all the possible games, they have the chance to identify soft lines. Soft lines usually exist in the games where the least number of people bet because there is less incentive by the sportsbooks to put an effort into making strong lines.

## See also

- Sports betting systems

**Categories:** Gambling | Sports betting

# Sports betting systems

*Sports betting systems* refers to a set of events that when combined for a particular game for a particular sport represents a profitable betting scenario. Since sports betting involves humans, there is no deterministic edge to the house or the gambler. Systems allow the gambler to have an edge.

Sportsbooks use systems in their analysis to set more accurate odds. Therefore the novice gambler may believe that using a system will always work, it is the general consensus that at some point, the oddsmakers will have adjusted for the system to make it no longer profitable. Very short-lived systems are called trends. Any single event that estimates a selection to have a higher likelihood of winning is called an angle as they are meant to be used in conjunction with other angles and trends to produce systems.

## Contents

- 1 Betting on systems
- 2 Determining systems

## Betting on systems

Systems can be deceiving. Any sample space can be constrained enough with meaningless criteria to create the illusion of a profitable betting system. For example, a coin can be flipped with heads being home teams and tails being road teams. Heads and tails each have a 50% probability of landing but if the amount of flips is limited to a small number, it is conceivable to create the illusion of predicting heads will come up 75% of the time.

That, in conjunction with the fact that sportsbooks adjust their odds according to the systems makes it difficult to follow systems indefinitely. The sportsbooks are slower to adjust the odds in some sports versus other sports depending on the number of games played and the amount of money they take in from bettors.

## Determining systems

Determining systems is a matter of using computer analysis tools and extracting all the possible games that meet a bettor's criteria. Then the bettor analyzes the results of those games to make a determination if one team is favored over the other.

**Categories:** Sports betting

# Sportsbook

## Contents

- 1 Word origin
- 2 Odds
- 3 Nevada sportsbooks
- 4 UK sportsbooks
- 5 Internet sportsbooks
- 6 See also

A *sportsbook* (sometimes abbreviated as book) or a *race and sports book* is a place where a gambler can wager on various sports competitions, including football, basketball, baseball, hockey, soccer, horse racing and boxing. The method of betting varies with the sport and the type of game. The more prominent the event, the more wagering options that are made available.

Winning bets are paid when the event finishes, or if not finished, when played long enough to become official; otherwise all bets are returned. This policy can cause some confusion since there can be a difference between what the sportsbook considers official and what the sports league consider official. Customers should carefully read the sportsbook rules before placing their bets.

The betting volume at sportsbooks varies throughout the year. Bettors have more interest in certain types of sports and increase the money wagered when those sports are in season. Likewise the interest in sports varies by country since the level of interest in the various sports is not constant the world over. Some major sporting events that don't follow a specific schedule, like boxing, can create peaks of activity for the sportsbooks.

## Word origin

A sportsbook is a portmanteau, French for "jacket holder," meaning a suitcase with two storage spaces. Sportsbook combines two meanings into one word for a sports gambling operation, in this case SPORTS and BOOK which is short for bookmaking.

## Odds

In the mid 1930s, Leo Hirschfield started a company in Minneapolis, Minnesota called Athletic Publications, Inc., that published and distributed odds to bookies across the country by telephone and telegraph. He had a team of handicappers analyzing the matchups who also studied newspapers across the country. The company was a major provider of odds and prices until it finally disbanded, under fear of prosecution from the Federal Wire Act of 1961.

Today most sportsbooks get their opening prices from other sportsbooks as well as private companies like Las Vegas Sports Consultants. They adjust prices based on the bets coming in, news, injury, and weather information, and the price movement by other sportsbooks.

## **Nevada sportsbooks**

Today there are roughly 150 licensed sportsbooks in the United States, all located in Nevada casinos. Now that many casinos share the same parent company, they offer the exact same wagering choices and odds, which is a disadvantage to the astute gambler who in the past could do more shopping for better prices.

In the 1950s the first Nevada sportsbooks, called turf clubs, opened. They were independent from the casinos, and had an informal agreement with the hotels that they would stay out of the casino business as long as the hotels stayed out of the sportsbook business. The sportsbooks had to pay a 10% tax so they charged a high vigorish to gamblers, but they still brought in a lot of business.

In 1974 the tax was lowered to 2%, (and in 1983 lowered to 0.25%), and in 1975 Lefty Rosenthal, who ran the Stardust Casino, convinced legislators to allow them in the casinos, and soon nearly all of the casinos added them. The turf clubs were no longer able to compete and eventually all closed.

In Nevada casino sportsbooks you will find:

- Betting Windows
- Numerous big screen televisions
- Places to sit and watch
- Interactive betting stations
- Odds boards, usually computerized

## **UK sportsbooks**

Betting shops are common in the United Kingdom. Companies like Ladbrokes and William Hill have offered walk-in betting shops for decades.

## **Internet sportsbooks**

While internet sportsbooks lack face-to-face transactions, they can handle more customers than land based sportsbooks and operate more cost effectively. They pass lower costs on to customers in the form of reduced vigorish (cheaper prices) or bonus incentives. They can also offer similar products, such as casino games, bingo, and poker to their existing clients.

While Internet sportsbooks take bets online, normally they are licensed in some jurisdiction. Taxation and regulation vary greatly by country.

Internet sportsbooks range from fraudulent operations with no intention of paying their customers to multi-billion dollar publicly traded companies. Internet sportsbooks range in focus, as some primarily cater to American sports, while others focus on European soccer. Some sportsbooks handle large wagers while others have low wagering limits. Some offer many exotic proposition wagers, where others have limited choices. Payment methods are not universally accepted at all sportsbooks.

Costa Rica is home to a large number of offshore sportsbooks, as it caters to many of the needs of the industry with an open regulatory environment and a large, capable workforce. A number of sportsbooks are also located in Jamaica, Gibraltar, Antigua, Curaçao, Australia, and many other countries around the world.

The United States Justice Department claims that wagering at offshore sportsbooks is a violation of the 1961 Federal Wire Act. Jeffrey Trauman of Harwood, North Dakota, was the first player ever to be prosecuted for online sports betting in the United States. The former car salesman, who quit his job to become a professional gambler, was cited under a North Dakota state law. [1]

## See also

- Sports betting
- Betting exchanges
- Gambling
- Online gambling
- Bookmaker
  - Point spread
- Point shaving

**Categories:** Sports betting

## Tic-tac

*Tic-tac* (also *tick-tack* and non-hyphenated variants) is a traditional method of sign language used by bookmakers to communicate the odds of certain horses. It is still used in on-course betting in the UK. A tic-tac man will usually wear bright white gloves to allow their hand movements to be easily seen.

A few simple examples of signals:

- Odds of 9/4 ("top of the head") - both hands touching the top of the head.
- Odds of 10/1 ("cockle" or "net") - fists together with the right-hand thumb protruding upwards, to resemble the number 10.
- Odds of 33/1 ("double carpet") - arms crossed, hands flat against the chest.



Within the UK there are some regional variations in the signals, for example in the south odds of 6/4 are represented by the hand touching the opposite ear, giving the slang term "ear'ole", whereas the same odds are indicated in the north by the hand touching the opposite elbow ("half arm").

Some of the signals may be called out verbally too. These names have evolved over time in a mixture of Cockney rhyming slang and backslang. For example, 4-1 is known as rouf (four backwards).

Essentially, the bookies use tic-tac as a way of communicating between their staff and ensuring their odds are not vastly different from their competitors, an advantage the punters could otherwise exploit. In particular, if a very large bet is placed with one bookmaker, this may be signalled to the others as a way of lowering the price on all the boards.

British racing pundit John McCririck uses tic-tac as part of his pieces to camera when explaining the odds of the horses for the next race.

The language is used less frequently than before, due in part to the use of radio communication by betting companies.

**Categories:** Sports betting

## Totalisator

A *totalisator* or *totalizator* (*tote board* in common parlance) is the name for the computerised system which runs parimutuel betting, calculating payoff odds, displaying them, and producing tickets based on incoming bets.

The first totalisator was an entirely mechanical system invented by the Australian George Julius of Julius Poole & Gibson Pty Ltd. It was installed at Ellerslie Racecourse in New Zealand in 1913. The first totalisator installed in the United States was at Arlington Park racecourse, Chicago, Illinois, in 1933. Julius, who was later knighted, founded Automatic Totalisators Ltd. in 1917 and added electrical components. The first entirely electronic totalisator was developed in 1966. By 1970 nearly every major racing centre used an ATL totalisator.

Totalisators have been superseded by general purpose computers running specialised wagering software such as Autotote.

**Categories:** Sports betting | Gambling

## Tote board

A *tote board* is a large, numeric or alphanumeric display used to convey information, typically at a race track (to display the odds or payoffs for each horse) or at a telethon (to display the total amount donated to the charitable organization sponsoring the event).

The first tote boards were manufactured for the horse racing industry by the American Totalizator Company, and "tote board" is probably a colloquialism for *totalizator*.

**Categories:** Gambling | Sports betting

## Trifecta

In horse racing terminology, a *trifecta* is a parimutuel bet in which the bettor must predict which horses will finish first, second, and third in exact order. The word comes from the related betting term, "perfecta."

The term has been extended to the realm of politics, where it is used to describe a situation in which an executive of government appoints another elected official to a position and is also allowed to appoint his successor. This process can be chained together; in other words, the executive can appoint an elected official to a position, appoint another elected official to the other's previous position, and finally appoint anyone to the second official's position. The first permutation of this chain is called a "quadfecta".

The trifecta system is seen by many as a loophole in democracy, because it allows an executive to essentially override a choice by the voters. This is mitigated by the fact that the system requires the agreement of all parties involved. Executives have been able to get around this by making the position offered a very financially lucrative or long term one.

In first-person shooter video games such as Counter-Strike, a trifecta can refer to a situation in which a single bullet kills three players.

A trifecta can also refer to any sequence of three (generally unfortunate) occurrences, drawing on the traditional belief that deaths (and presumably, disasters and other bad things) always come in groups of three.

The word *trifecta* is also slang for a three-point field goal in the game of basketball.

"Trifecta" is also gaining popularity as a slang term to describe any successful phenomenon that comes in threes, for example: "She has the 'trifecta' of attractiveness, intelligence, and career success."

It is also a term in Limit Hold'em poker where a player checkraises on the flop, turn, and river.

**Categories:** Wagering | Sports betting

# Arbitrage betting

*Betting arbitrage* is a particular case of arbitrage arising on betting markets due to either bookmakers' different opinions on event outcomes or plain errors. By placing one bet per each outcome with different betting companies, the bettor can make a profit.

In the bettors' slang an arbitrage is often referred to as an *arb*. A typical arb is around 2%, often less, however 4%-5% are also normal and during some special events they might reach 20%.

Arbitrage betting is usually done on the web by researching prices (odds) on betting web sites or subscribing to one of the arb-hunting services. As an investment practice, it is not completely risk-free despite the commercially used terms 'no-risk' and *risk-free betting*. It involves relatively large sums of money (stakes are bigger than in normal betting) while another variety, *betting investment*, means placing relatively small bets systematically on overvalued odds most of which will lose but some win thus making a profit.

## Contents

- 1 Arbitrage in theory
  - 1.1 Arbitrage using bookmakers
  - 1.2 Arbitrage using betting exchanges

## Arbitrage in theory

There are a number of potential arbitrage deals. Below is an explanation of some of them including formulas and risks associated with these arbitrage deals. The table below introduces a number of variables that will be used to formalise the arbitrage models.

### Variable Explanation

- s1** Stake in outcome 1
- s2** Stake in outcome 2
- o1** Odds for outcome 1
- o2** Odds for outcome 2
- r1** Return if outcome 1 occurs
- r2** Return if outcome 2 occurs

## Arbitrage using bookmakers

This type of arbitrage takes advantage of different odds offered by different bookmakers. Assume the following situation:

The event to be bet on has only two distinct outcomes (e.g. a tennis match - either Federer wins or Henman wins).

	Bookmaker 1	Bookmaker 2
Outcome 1	1.3	1.5
Outcome 2	4.3	3

Placing a back bet of \$100 on outcome 1 with bookmaker 2 and of \$35 on outcome 2 with bookmaker 1 covers both possible outcomes and provides a profit of \$15 if outcome 1 occurs, and a profit of \$20.5 if outcome 2 occurs.

Hedging the bets to one side or the other can provide the bettor with a 'risk free' winnings. For instance if \$50 was bet on outcome 2 with bookmaker 1 instead of the \$35 in the example above, nothing would be won or lost if outcome 1 was the result (\$100 x 1.5 = \$150, covering the total of the two bets), however if outcome 2 was the final result then the overall profit would be \$65.

Let's formalise this arbitrage model.  $r^1$  and  $r^2$  can be calculated as follows:

$$r^1 = s^1 * (o^1 - 1) + s^2$$

$$r^2 = s^1 s^2 * (o^2 - 1)$$

Plugging the numbers from the above example into the formulas gives:

$$r^1 = 100(1.3 - 1) + 30 = 0$$

$$r^2 = 100 \cdot 30(3 - 1) = 40$$

However, these calculations can be done for you with an arbitrage calculator.

## Arbitrage using betting exchanges

Betting exchanges open up a new range of arbitrage possibilities since it is possible to back as well as lay an event. Arbitrage using only the back or lay side might occur on betting exchanges. It is in principle the same as the arbitrage using different bookmakers. Arbitrage using back and lay side is possible if a lay bet provides lower odds than a back bet.

Categories: Wagering

## Bank job

In gambling, a *Bank Job* is a term for putting all of your money on a particular betting option, for instance "Yankees to beat the Kansas City Royals is a Bank Job"

It is often mocked by statements claiming people have "Multiple Banks" on a particular bet, for instance "I have 4 Banks on Chelsea to win the English Premier League"

**Categories:** Wagering | Gambling

# Bar bet

A *bar bet* is a bet made between two patrons at a bar. Bar bets can range from wagers about little-known trivia, such as obscure historical facts, to feats of skill and strength. Some bar bets are intended to trick the other party into losing.

## Contents

- 1 Famous bar bets
- 3 Further reading

## Famous bar bets

- The annual Midnight Sun baseball game played in Fairbanks, Alaska (the only game to be contested after midnight without the use of artificial lighting) was established in 1906 as the result of a bar bet.<sup>1,2</sup>
- Two of Tony Hawks' books, *Round Ireland With A Fridge* (ISBN 0-091-86777-0) and *Playing The Moldovans At Tennis* (ISBN 0-091-87456-4), were written describing Hawks' attempts to win two bar bets.
- The film *To Have and Have Not* is supposedly the result of bar bet between Ernest Hemingway and Howard Hawks, with Hemingway betting Hawks that Hawks couldn't make a good film from Hemingway's worst novel.<sup>3</sup>
- It is widely believed that the creation of Scientology was the result of a bar bet between L. Ron Hubbard and Robert A. Heinlein. According to Scientology critic Lindsay<sup>[Lindsay]</sup> this is "definitely not true", no such bet was ever made, it would have been "uncharacteristic of Heinlein" to make such a bet, and "there's no supporting evidence".

## Further reading

- Rub Cruik (October 1985). *175 Ways to Win a Free Drink: The Complete Book of Bar Bets*. Dodd Mead. ISBN 0396085865.
- Henny Youngman (1974). *Bar bets, bar jokes, bar tricks*. Citadel Press. ISBN 0806504048.
- Alan Ericksen (1981). *Bar games, bets and challenges*. Warner Books. ISBN 0446906484.

Categories: Wagering

## Betting strategy

*Betting strategies* or *betting systems* are approaches to gambling intended to increase the odds of winning.

### Independent Events

The following betting strategies have been recorded as being applied to games which operate on independent events. For such games, the odds of a particular outcome are identical for every bet played. No such strategy can beat the house edge (if any) in the long run, and all of them trade off many small wins for a big loss or vice versa.

- Martingale - doubling bet after each loss until a win is achieved (or fails when the amount of the bet becomes excessive).
- Kelly criterion;

**Categories:** Gambling | Wagering

## Calcutta

A *Calcutta Auction* is an open auction held in conjunction with a golf tournament, horse race, or similar contest with multiple entrants. It is popular in Backgammon and is currently enjoying rising popularity for NCAA Basketball pools during March Madness.

Bidding for each contestant begins in random order, with only one contestant being bid upon at any time. Accordingly, participants (originally in Calcutta, India, from where this technique was first recorded by the Colonial British) bid among themselves to "buy" each of the contestants, with each contestant being assigned to the highest bidder. The contestant will then pay out to the owner a predetermined proportion of the pool depending on how it performs in the tournament. While variations in payoff schedules exist, in an NCAA Basketball tournament (64 teams, single elimination) the payoffs could resemble the following schedule: 1 win - 0.25%, 2 wins - 2%, 3 wins - 4%, 4 wins - 8%, 5 wins - 16%, tournament winner with 6 wins - 32%.

The most interesting element of Calcutta Auctions is in determining an appropriate wager for each contestant, as the payoff will directly hinge on the size of the pot and thereby the size of the bids being placed. Thus the value of each team fluctuates during the course of the betting. For example, even if a bidder knew the Tar Heels would be the tournament winner and thus pay out 32% of the pool, she would still be unsure of the exact value of the team (unless it was the last team being bid on) as the payout would depend on the sum total of all winning bids.

This is similar to parimutuel betting, in that the winnings are awarded from the total pool of bets, but differs in that only one player can bet on any one contestant. However, a player may purchase as many contestants as they desire.

Categories: Wagering

## Daily double

A *daily double* is a type of wager offered by horse and dog racing tracks. It requires bettors to select the winners of two consecutive races. Because of the increased difficulty of picking two straight winners, winning daily double bets often pay off at relatively high odds.

The daily double was the first so-called "exotic" wager to be offered by American racetracks. The wager was typically offered only for the first two races of each day's program, as an enticement for spectators to arrive early for the entire program (and hopefully wager more). As with all other American racing wagers, the "double" is conducted in parimutuel fashion, with the number of betting interests in the daily double pool equal to the product of the number of runners in both races — in other words, if there are ten entries in the first race and eight in the second, there will be 80 separate betting interests, one for each combination. By sheer mathematics, this results in the higher payoffs than those found in straight betting for win, place or show.

For many years, the daily double was the only exotic wager offered. Later on, the exacta was also offered on select races during each program. The wagers were offered only a few times each day largely because of the limitations of electro-mechanical totalisator systems. When computer technology took over, many more exotic wagers were introduced, such as the trifecta, superfecta and pick 6. The higher payouts for these wagers tended to diminish interest in the "old fashioned" daily double, but it is still offered at all tracks, sometimes more than once during a program. (A "late double" is frequently offered on the last two races on a program.)

The "Pick 3" and "Pick 4" wagers are derived from the daily double; they require bettors to pick the winners of three or four consecutive races. These are often offered on a "rolling" basis — a rolling pick 3 on races one through three, another on races two through four, and so on throughout the day.

Occasional doubles are offered on important races contested on separate days. The most prominent example of the "Oaks-Derby Double" offered by Churchill Downs, where bettors pick the winners of the Kentucky Oaks and Kentucky Derby. The Oaks is run the day before the Derby.

Categories: Wagering | Horse racing

## Dutch book

In gambling a *Dutch book* or *lock* is a set of odds and bets which guarantees a profit, no matter what the outcome of the gamble. It is associated with probabilities implied by the odds not being coherent.

In economics a *Dutch book* usually refers to a sequence of trades that would leave one party strictly worse off and another strictly better off. Typical assumptions in consumer choice theory rule out the possibility that anyone can be Dutch-booked.

## Gambling

In one example, a bookmaker has offered odds and attracted bets that make the result irrelevant; in this case the implied probabilities will add up to a number greater than 1.

<i>Horse number</i>	<i>Offered odds:</i>	<i>Bets:</i>	<i>Implied probability:</i>
1	Evens	100	0.5
2	3 to 1 against	50	0.25
3	4 to 1 against	40	0.2
4	9 to 1 against	20	0.1
<i>Total</i>		<i>210</i>	<i>1.05</i>

In this case, whichever horse wins, the bookmaker will pay out 200 (including returning the winning stake) and so make a profit of 10.

If for some reason Horse 4 was withdrawn and the bookmaker was foolish enough not to adjust the other odds, the implied probabilities would add up to 0.95 and a gambler could lock in a profit of 10, by betting 100, 50 and 40 on the remaining three horses respectively.

Other forms of Dutch books can exist when incoherent odds are offered on exotic bets such as forecasting the order in which horses will finish. With competitive fixed-odds gambling being offered electronically, gamblers can sometimes create a Dutch book by selecting the best odds from different bookmakers, in effect by undertaking an arbitrage operation. The bookmakers should react by adjusting the offered odds in the light of demand, so as to remove the potential profit.

In Bayesian probability, Frank P. Ramsey and Bruno de Finetti required personal degrees of belief to be coherent so that a Dutch book could not be made against them, whichever way bets were made. Necessary and sufficient conditions for this are that their degrees of belief satisfy the axioms of probability.

## Economics

In economics the classic example of a situation in which a consumer X can be Dutch-booked is if he or she has intransitive preferences. Suppose that for this consumer, A is preferred to B, B is preferred to C, and C is preferred to A. Then suppose that someone else



in the population, Y, has one of these goods. Without loss of generality, suppose Y has good A. Then Y can first sell A to X for  $B + \mu$ ; then sell B to X for  $C + \mu$ ; then sell C to X for  $A + \mu$ , where  $\mu$  is some small amount of the numeraire. After this sequence of trades, X has given  $3 \cdot \mu$  to Y for nothing in return. Y will have exploited an arbitrage opportunity by taking advantage of X's intransitive preferences.

Economists usually argue that people with preferences like X's will have all their wealth taken from them in the market. If this is the case, we won't observe preferences with intransitivities or other features that allow people to be Dutch-booked. However, if people are somewhat sophisticated about their intransitivities and/or if competition by arbitrageurs drives epsilon to zero, non-"standard" preferences may still be observable.

## See also

- History of the term Dutch Book

Categories: Wagering

## Exacta

An *Exacta* is a type of bet placed in horse racing which requires the bettor to select the 1st and 2nd place finishers of the race in the correct order.

This is more difficult than selecting only the winner of the race, and the resulting payouts for correctly placing an exacta bet are therefore correspondingly higher.

Called a *perfecta* in some New England (U.S.) states, though this particular use of nomenclature is widely considered to be anomalous.

**Categories:** Horse racing | Gambling | Wagering

## Fixed Odds Betting Terminals

*Fixed Odds Betting Terminals* (FOBTs) are computerised machines normally found in betting shops which allow players to bet on the outcome of various games and events with Fixed Odds. They were introduced to UK shops in 2002, shortly after the abolition of the Betting Tax in October 2001.

The most commonly played game is Roulette. The minimum bet per spin is £1 and the maximum is £100. Chips can be as small as 20 pence. The maximum amount that can be won on any spin is £500.

Other games include Spoof, Bingo, Virtual Racing and Triple Disc.

Shops are allowed a maximum of four such terminals, although since this number also includes fruit machines, many shops have fewer than four.

**Categories:** Gambling | Wagering

## Kelly gambling

*Kelly gambling* is an application of information theory to gambling and (with some ethical and legal reservations) investing. An important but simple relation exists between the amount of side information a gambler obtains and the expected exponential growth of his capital (Kelly).

for an optimal betting strategy, where  $K_0$  is the initial capital,  $K_t$  is the capital after the  $t$ th bet, and  $H_i$  is the amount of side information obtained concerning the  $i$ th bet (in particular, the mutual information relative to the outcome of each bettable event). This equation applies in the absence of any transaction costs or minimum bets. When these constraints apply (as they invariably do in real life), another important gambling concept comes into play: the gambler (or unscrupulous investor) must face a certain probability of ultimate ruin, which is known as the gambler's ruin scenario. Note that even food, clothing, and shelter can be considered fixed transaction costs and thus contribute to the gambler's probability of ultimate ruin.

This equation was the first application of Shannon's theory of information outside its prevailing paradigm of data communications (Pierce).

Categories: Wagering

## Nassau

The *Nassau bet* is a type of bet in golf that is essentially three separate bets. Money is wagered on the best score in the front 9, back 9, and total 18 holes. The Nassau is one of golf's most classic and most popular wagers.

The amount of the bet is established -- often \$2 or \$5 -- for each nine with a third bet for the overall 18-hole match. Points are calculated by scoring each hole as a separate match. The player with the lowest score on a hole wins a point. If the scores tie for a hole, this results in a "push," or no points won or lost.

### Nassau Presses

This is a side bet offered during a Nassau match by the side that is losing in an effort to even their money for either the front or back nine. If the player who presses then beats his opponent over the remaining holes on that nine, he wins the press bet. In effect it is a double or nothing proposition. When a side is two or more points down in the match, they may request a press. The opposition has the option to accept or reject the press, although it is usually accepted.

The press bet runs for the remaining holes to be played on either the front or back nine holes only. Press bets can be re-pressed if the player falls two more points behind. The

amount of the press bet is the same as the original match bet. For example, in a \$2 Nassau, presses are for \$2.

As with any golf game, players of greatly different abilities can compete. Handicaps are used to determine how many strokes one player must give another.

**Categories:** Golf terminology | Wagering

## Odds

In probability theory and statistics the *odds* in favor of an event or a proposition are the quantity  $p / (1 - p)$ , where  $p$  is the probability of the event or proposition. The logarithm of the odds is the logit of the probability.

Odds have long been the standard way of representing probability used by bookmakers, though the method of presenting odds varies by location.

Taking an event with a 1 in 5 probability of occurring (i.e. 0.2 or 20%), then the odds are  $0.2 / (1 - 0.2) = 0.2 / 0.8 = 0.25$ . If you bet 1 at fair odds and the event occurred, you would receive back 4 plus your original 1 stake. This would be presented in fractional odds of 4 to 1 against (written as 4 : 1 or 4/1), in decimal odds as 5.0 to include the returned stake, in craps payout as 5 for 1, and in moneyline odds as +400 representing the gain from a 100 stake.

By contrast, for an event with a 4 in 5 probability of occurring (i.e. 0.8 or 80%), then the odds are  $0.8 / (1 - 0.8) = 4$ . If you bet 4 at fair odds and the event occurred, you would receive back 1 plus your original 4 stake. This would be presented in fractional odds of 4 to 1 on (written as 1 : 4 or 1/4), in decimal odds as 1.25 to include the returned stake, in craps as 5 for 4, and in moneyline odds as 400 representing the stake necessary to gain 100.

The odds are a ratio of probabilities; an odds ratio is a ratio of odds, that is, a ratio of ratios of probabilities. Odds-ratios are often used in analysis of clinical trials. While they have useful mathematical properties, they can produce counter-intuitive results: in the example above an 80% probability is four times the chance of a 20% probability but the odds are 16 times higher.

### See also

- Gambling
- Betting odds slang

Categories: Wagering

## Over-under

An *over-under* or *over/under* bet is a wager in which a sportsbook will predict a number for a statistic in a given game (usually the combined score of the two teams), and bettors

wager that the actual number in the game will be either higher or lower than that number. For example, in Super Bowl XXXIX, most Las Vegas casinos set the over-under for the score of the game at 46.0. A bettor could wager that the combined score of the two teams would be either more than or less than that number (as it happened, the combined score was 45, so anyone who had bet the under won).

## Statistics

Though this bet is most commonly made with the combined score of the two teams, many other statistics can be used, including:

- A team's win-loss record for the season
- In football, a player's or team's total rushing yards or attempts, first down conversions, third down conversions, interceptions, completions, etc.
- In basketball, a player's or team's total assists, blocks, turnovers, steals, field goal percentage, etc.
- In baseball, a player's or team's total number of home runs, RBI, etc.

Categories: Wagering

## Parlay

A *parlay* is a single bet that links together two or more individual wagers and is dependent on all of those wagers winning together. The benefit of the parlay is that there are much higher payoffs than placing each individual bet separately since the difficulty of hitting it is much higher. If any of the bets in the parlay loses, the entire parlay loses.

For example: Joe placed a three-team NFL parlay on the Lions, Bears and Bengals. If any one of those teams fail to cover the spread, Joe loses his parlay bet. But if all three teams beat the spread, Joe gets paid \$600 for every \$100 bet.

Categories: Wagering

## Pick 6

A *pick 6* is a type of wager offered by horse racing tracks. It requires bettors to select the winners of six consecutive races. Because of the great difficulty in picking six straight winners, plus the number of betting interests involved, payoffs for successful wagers are quite high, sometimes in the millions of dollars.

The pick 6 has its roots in the daily double, the first so-called "exotic" wager offered by horse tracks. To win the daily double, a bettor must pick the winner of two consecutive races, traditionally the first two and the last two races of the program. The pick 6 merely extends

this principle. The wager is offered once per program, and is usually offered on six races which conclude with the featured race of the day.

The wager is conducted in parimutuel fashion, with all pick 6 bets going into a separate pool from other kinds of betting. There is one "betting interest" for each available combination, and the number of combinations is equal to the product of the number of runners in all six races. A simplified example: If there are ten horses in each of the six races, then the number of combinations is  $10 \times 10 \times 10 \times 10 \times 10 \times 10$ , or 1,000,000.

The pick 6 wager actually has two payoffs, one for bettors who pick all six winners, and a smaller payoff for those who pick five out of six. The total pick 6 betting pool is divided by percentage between the two payouts, along the lines of 75% for the six-winner pool and 25% for the five-winner pool.

Because of the sheer difficulty of successfully choosing six straight winners, plus the large number of betting interests, it is common for there to be no winning wager on all six races. When that happens, the six-winner portion of the pool carries over to the following program, and continues to carry over until it is won. This allows the "carryover pool" to grow to large sums, and tracks usually publicize the fact that their carryover pool has grown to six or seven figures. The five-winner pool is paid out each day, however; if no bettors have chosen five out of six winners, then those who have chosen four winners are paid, or even just three winners (which has happened when a series of longshots have won races). The pick 6 pool is also paid out in its entirety on the last day of a race meet; if there are no six-winner tickets, then the pool is split among five-winner tickets.

Because of the huge number of betting interests involved, bettors will often try to increase their chances of winning by selecting multiple combinations. This can be costly — a bettor who wants to cover two horses in each race must bet on  $2 \times 2 \times 2 \times 2 \times 2 \times 2$  combinations, or 64 combinations, times \$2 for each for a total of \$128. This method is called "boxing horses," and is also used with other wagers such as a trifecta or superfecta.

## **Late scratches**

Because all pick 6 wagers must be made before the first of the six races, there are many times when a horse is scratched from a race well after the wager is placed. How this is handled varies according to the rules of the racing jurisdiction. In most cases, the track substitutes the horse that is the post time betting favorite (in the "win" betting pools); if the bettor's original horse is a late scratch and the post time favorite wins, then the bettor is considered to have picked the winner for that race. In other cases, the track may declare combinations involving the scratched horse to have "no action," and the wager is refunded.

## **Races moved from turf to dirt**

At North American tracks, races which are run on a turf (grass) course must sometimes be moved to the main dirt course, usually due to heavy rain or other adverse weather conditions; sometimes this switch is made after pick 6 wagering is closed. Moving from turf to dirt greatly affects the wagering decisions of astute handicappers, as many horses perform differently according to the racing surface. For pick 6 wagering, different tracks handle this situation in different ways. In New York, a race moved from turf to dirt after pick 6 wagering

closes is declared an "all win" race, where picks on any horse in that race are declared successful. If only one race is moved, bettors who successfully pick the other five race winners will win or share the full six-winner pool, including carryovers. If two races are moved, bettors who pick the other four winners will win or share in that day's six-winner pool, but no carryover, and the previous carryover pool only goes to the next program. (Few North American tracks schedule more than two turf races in a program.)

**Categories:** Horse racing | Wagering

## Proposition bet

In gambling, a *proposition bet* (also called a prop bet) is any bet made for a sum of money that involves a proposition. An example is the professional poker player, Howard "The Professor" Lederer, a vegetarian who wagered \$10,000 with a fellow gambler that he could eat a cheeseburger. He did it and won the money. Golf is a very common game for prop bets.

**Categories:** Gambling stubs | Wagering

## SP bookmaking

*Starting price* or *SP* bookmaking literally refers to taking bets at fixed odds, i.e. a fixed starting price, as opposed to the totalisator model of betting. This form of gambling was only legal in Australia for bookmakers operating on the course or racetrack, and so a large telephone based SP bookmaking industry started, leading to the term *SP bookie* becoming synonymous with a criminal bookmaker operating off-course in competition with the authorized on-course bookmakers and the totalisator (or *tote*). SP quickly became a large area of vice, intimately associated with police corruption and racetrack rigging. Several Royal Commissions investigated the practice, and there were many attempts to eradicate it. It is unclear the extent to which it still occurs.

*Starting Price* is also used as a UK colloquial term: "What's the SP?" as a general "What's happened?/where are we with this?/how are we doing?" enquiry from someone just arriving, as a derivation of the sense "At what odds are we betting on this race at which I've just arrived?"

**Categories:** Wagering | Gambling

## Scientific wager

A *scientific wager* is a wager whose outcome is settled by scientific method. They typically consist of an offer to pay a certain sum of money on the scientific proof or disproof of some currently uncertain statement. Some wagers have specific date restrictions for collection, but

many are open. Wagers occasionally exert a powerful galvanizing effect on society and the scientific community.

Notable scientists who have made scientific wagers include Stephen Hawking and Richard Feynman. Stanford Linear Accelerator has an open book containing about 35 bets in particle physics dating back to 1980; many are still unresolved.

## **Famous scientific wagers**

- In 1959, Richard Feynman bet \$1000 that no-one could construct a motor no bigger than 1/64 of an inch on a side. He lost the bet when Bill McLennan, using amateur radio skills, constructed such a motor. Feynman had never formalized the bet because he couldn't define his terms sufficiently precisely, but paid up anyway; Feynman is also on record as saying that he was disappointed with the outcome because he had hoped his reward would stimulate some new fabrication technology, but McLennan's motor used only existing techniques. Physicist Philip Ball, writing in Nature Materials, discusses this episode and concludes "Do we, like Feynman, always underestimate what our current technologies can achieve?"

- In 1975, cosmologist Stephen Hawking bet fellow cosmologist Kip Thorne a subscription to Penthouse magazine for Thorne against four years of Private Eye for him that a Cygnus X-1 would turn out not to be a black hole. It was, so Hawking lost. It has been said that Hawking hoped to lose the bet as so much of his own work depended upon the existence of black holes. For Hawking, then, the bet was a type of insurance.

- In 1997 Stephen Hawking and Kip Thorne made a bet with John Preskill on the ultimate resolution of the apparent contradiction between Hawking radiation resulting in loss of information, and a requirement of quantum mechanics that information cannot be destroyed. Hawking and Thorne bet that information must be lost in a black hole; Preskill bet that it must not. The formal wager is: "When an initial pure quantum state undergoes gravitational collapse to form a black hole, the final state at the end of black hole evaporation will always be a pure quantum state". The stake is an encyclopedia of the winner's choice, from which "information can be recovered at will". Hawking conceded the bet in 2004. See also: Thorne Hawking Preskill bet

- In 1980, biologist Paul R. Ehrlich bet economist Julian Lincoln Simon that the price of a portfolio of \$200 of each of five mineral commodities (copper, chromium, nickel, tin, and tungsten) would rise over the next 10 years. He lost: by 1990, the prices had fallen to \$576. See also: Wager between Julian Simon and Paul Ehrlich.

- In 1870, Alfred Russel Wallace bet John Hampden, a believer in the flat-Earth theory, that he (Wallace) could prove the flat Earth hypothesis incorrect. The sum staked was £500 (then worth a great deal more than now). A test, involving a stretch of the Old Bedford Canal, in London, was agreed on: Wallace

measured the curvature of the canal's surface using two markers separated by about five kilometres and suspended at equal heights above the water's surface. Using a telescope mounted 5km from one of the markers, Wallace established that the nearer one appeared to be the higher of the two. An independent referee agreed that this showed the Earth's surface to curve away from the telescope, and so Wallace received his money. However, Hampden never accepted the result and made increasingly unpleasant threats to Wallace.

- In 1684, Christopher Wren announced that he would give a book worth 40 shillings to anyone who could deduce Kepler's laws from the inverse-square law. Isaac Newton's musings on this problem eventually grew into his Principia. However, Newton was too late to qualify for the book. Historian Alan Shapiro has stated that this episode was "undoubtedly one of the most crucial wagers in scientific history".

## See also

- The efforts of photographer Eadweard Muybridge to capture the motion of a galloping horse were not part of a wager, contrary to popular opinion.
- Pascal's wager is not a wager in the sense used in this article.

Categories: Wagering

## Simon-Ehrlich wager

Julian L. Simon and Paul Ehrlich entered in a famous wager in 1980, betting on a mutually agreed upon measure of resource scarcity over the decade leading up to 1990.

### Contents

- 1 The wager
- 2 Analysis of why Ehrlich lost
- 3 The proposed second wager

## The wager

Simon had Ehrlich choose five of several commodity metals. Ehrlich chose 5 metals: copper, chrome, nickel, tin, and tungsten. Simon bet that their prices would go down. Ehrlich bet they would go up.

"The face-off occurred in the pages of Social Science Quarterly, where Simon challenged Ehrlich to put his money where his mouth was. In response to Ehrlich's published claim that



"If I were a gambler, I would take even money that England will not exist in the year 2000" - a proposition Simon regarded as too silly to bother with - Simon countered with "a public offer to stake US\$10,000 ... on my belief that the cost of non-government-controlled raw materials (including grain and oil) will not rise in the long run.

You could name your own terms: select any raw material you wanted - copper, tin, whatever - and select any date in the future, "any date more than a year away," and Simon would bet that the commodity's price on that date would be lower than what it was at the time of the wager." ... Ehrlich and his colleagues picked five metals that they thought would undergo big price rises: chromium, copper, nickel, tin, and tungsten. Then, on paper, they bought \$200 worth of each, for a total bet of \$1,000, using the prices on September 29, 1980, as an index. They designated September 29, 1990, 10 years hence, as the payoff date. If the inflation-adjusted prices of the various metals rose in the interim, Simon would pay Ehrlich the combined difference; if the prices fell, Ehrlich et al. would pay Simon. ... Between 1980 and 1990, the world's population grew by more than 800 million, the largest increase in one decade in all of history. But by September 1990, without a single exception, the price of each of Ehrlich's selected metals had fallen, and in some cases had dropped through the floor. Chrome, which had sold for \$3.90 a pound in 1980, was down to \$3.70 in 1990. Tin, which was \$8.72 a pound in 1980, was down to \$3.88 a decade later. [1]

As a result, in October 1990, Paul Ehrlich mailed Julian Simon a check for \$576.07 to settle the wager in Simon's favor.

## **Analysis of why Ehrlich lost**

According to Paul Ehrlich's website: "In 1980, Julian Simon repeatedly challenged environmental scientists to bet against him on trends in prices of commodities, asserting that humanity would never run out of anything. Paul and the other scientists knew that the five metals in the proposed wager were not critical indicators and said so at the time. They emphasized that the depletion of so-called renewable resources--environmental resources such as soils, forests, species diversity, and groundwater--is much more indicative of the deteriorating state of society's life-support systems....Nonetheless, after consulting with many colleagues, Paul and Berkeley physicists John Harte and John Holdren accepted Simon's challenge in late 1980..."

Julian Simon won because the price of three of the five metals went down in absolute terms and all five of the metals fell in price in inflation adjusted terms [2] with both tin and tungsten falling by more than half (inflation adjusted). So, per the terms of the wager, Ehrlich paid Simon the difference in price between the same quantity of metals in 1980 and 1990 (which was \$576.07). The prices of all five metals increased between 1950 and 1975, but Ehrlich believes three of the five went down during the 1980s because of the price of oil doubling in 1979, and because of a worldwide recession in the early 1980s.

Yet, it is significant that "All of the former's [Ehrlich's] grim predictions had been decisively overturned by events. Ehrlich was wrong about higher natural resource prices, about "famines of unbelievable proportions" occurring by 1975, about "hundreds of millions of people starving to death" in the 1970s and '80s, about the world "entering a genuine age of scarcity."

In 1990, for his having promoted "greater public understanding of environmental problems," Ehrlich received a MacArthur Foundation "genius" award." [3]

"[Simon] always found it somewhat peculiar that neither the Science piece nor his public wager with Ehrlich nor anything else that he did, said, or wrote seemed to make much of a dent on the world at large. For some reason he could never comprehend, people were inclined to believe the very worst about anything and everything; they were immune to contrary evidence just as if they'd been medically vaccinated against the force of fact. Furthermore, there seemed to be a bizarre reverse-Cassandra effect operating in the universe: whereas the mythical Cassandra spoke the awful truth and was not believed, these days "experts" spoke awful falsehoods, and they were believed. Repeatedly being wrong actually seemed to be an advantage, conferring some sort of puzzling magic glow upon the speaker." [4]

Simon offered to raise the wager to \$20,000 and use any resources at any time that Ehrlich preferred, but the two were unable to reach an agreement on the terms of a second wager.

## **The proposed second wager**

Understanding that Simon wanted to bet again, Ehrlich and climatologist Stephen Schneider counter-offered, challenging Simon to bet on 15 current trends, betting \$1000 that each will get worse (as in the previous wager) over a ten year future period.

The trends they bet would continue to worsen were:

The three years 2002-2004 will on average be warmer than 1992-1994.

There will be more carbon dioxide in the atmosphere in 2004 than in 1994.

There will be more nitrous oxide in the atmosphere in 2004 than 1994.

The concentration of ozone in the lower atmosphere (the troposphere) will be greater than in 1994.

Emissions of the air pollutant sulfur dioxide in Asia will be significantly greater in 2004 than in 1994.

There will be less fertile cropland per person in 2004 than in 1994.

There will be less agricultural soil per person in 2004 than 1994.

There will be on average less rice and wheat grown per person in 2002-2004 than in 1992-1994.

In developing nations there will be less firewood available per person in 2004 than in 1994.

The remaining area of virgin tropical moist forests will be significantly smaller in 2004 than in 1994.

The oceanic fisheries harvest per person will continue its downward trend and thus in 2004 will be smaller than in 1994.

There will be fewer plant and animal species still extant in 2004 than in 1994.

More people will die of AIDS in 2004 than in 1994.

Between 1994 and 2004, sperm cell counts of human males will continue to decline and reproductive disorders will continue to increase.

The gap in wealth between the richest 10% of humanity and the poorest 10% will be greater in 2004 than in 1994.

Simon declined the bet, and used the following analogy to explain why he did so:

"Let me characterize their [Ehrlich and Schneider's] offer as follows. I predict, and this is for real, that the average performances in the next Olympics will be better than those in the last Olympics. On average, the performances have gotten better, Olympics to Olympics, for a variety of reasons. What Ehrlich and others says is that they don't want to bet on athletic performances, they want to bet on the conditions of the track, or the weather, or the officials, or any other such indirect measure."

Categories: Wagering

## Sucker bet

A *sucker bet* is a bet based on something other than expected return including:

- parlays: One bet ticket written with at least two wagers (all must win for the ticket to cash).
- teaser: A sucker wager that allows bettors to add and subtract points from posted odds.
- exotic: Any wager other than a straight bet or parlay (also referred to as a proposition or prop).

To calculate expected return, use the following formula:  $\text{EXPECTED RETURN} = \text{POTENTIAL WINNING} * \text{PROBABILITY OF WINNING} - \text{POTENTIAL COST} * \text{PROBABILITY OF LOSING}$ .

It is a bet where the odds of winning are significantly and clearly worse than the payout.

For example, the chances of correctly guessing the order of the final 3 cards of Faro is usually 1 in 4, yet the bet only pays 3:1. Taking insurance in Blackjack is also often considered a sucker bet.

Sucker bets are often created to offer higher payouts to offer the player a chance at "fast money" in exchange for a decreased chance of winning.

**Categories:** Gambling | Wagering

## Superfecta

The *superfecta* is a type of wager in parimutuel betting in which the bettor, in order to win, must pick the first four finishers of a race in the correct sequence. This is even more unlikely than a successful wager in the trifecta, which requires correctly picking the first three finishers in order, and as such will have a correspondingly higher payoff.

# Gamblers

List of World Backgammon Champions | MIT Blackjack Team | List of poker players

## List of World Backgammon Champions

The following is a *List of World Backgammon Champions* from 1967 to present:

1967—Tim Holland, United States  
1968—Tim Holland, United States  
1969— no championships held  
1970— no championships held  
1971—Tim Holland, United States  
1972—Oswald Jacoby, United States  
1973—Carol Crawford, United States (first female champion)  
1974—Claude Beer, United States  
1975—Billy Eisenberg, United States  
1976—Baron Vernon Ball, United States  
1977—Ken Goodman, United States  
1978—Paul "X-22" Magriel, United States  
1979—Luigi Villa, Italy  
1980—Walter Coratella, Mexico  
1981—Lee Genuid, United States  
1982—Jacques Michel, Switzerland  
1983—Bill Robertie, United States  
1984—Mike Svobodny, United States  
1985—Charles-Henri Sabet, Italy  
1986—Clement Palacci, Italy  
1987—Bill Robertie, United States  
1988—Phillip Marmorstein, Germany  
1989—Joe Russell, United States  
1990—Hal Heinrich, Canada  
1991—Michael Meyburg, Germany  
1992—Ion Ressu, Romania  
1993—Peter Jes Thomsen, Denmark  
1994—Frank Frigo, United States  
1995—David Ben-Zion, Israel  
1996—David Nahmad, Monaco  
1997—Jerry Grandell, Sweden  
1998—Michael Meyburg, Germany  
1999—Jörgen Granstedt, Sweden  
2000—Katie Scalamandre, United States  
2001—Jörgen Granstedt, Sweden

2002—Mads Andersen, Denmark  
2003—Jon Kristian Røyset, Norway  
2004—Peter Hallberg, Denmark  
2005—Dennis Carlsten, United States  
2006—

## MIT Blackjack Team

The *MIT Blackjack Team*, as the name suggests, was a group of students and ex-students from the Massachusetts Institute of Technology who attempted to beat casinos at blackjack worldwide. The team and its successors operated from 1979 through the beginning of the 21st century.

### Contents

- 1 The plan and operation
- 2 In the media
- 3 Notes

### The plan and operation

Blackjack gives the house a low statistical advantage compared to other casino games. Beyond the basic strategy of when to hit and when to stand, individual players can use a combination of betting strategy, card tracking, and card counting to improve their odds. Accurate card counting is a fairly difficult skill, but since the early 1960s a large number of schemes have been published — and casinos have adjusted the rules of play to counter the most popular methods.

The chance to make large amounts of money card counting appealed to some mathematically minded students at MIT. The university had card playing clubs, but some students decided to develop their hobby. The group combined the individual player advantages with a team approach of counters and players to maximise any opportunities and disguise the betting patterns card counting produces. In a 2002 interview in *Blackjack Forum* magazine,[1] MIT team manager Johnny Chang reported that, in addition to classic card counting and blackjack team techniques, the group at various times made use of advanced shuffle tracking and ace tracking techniques. While the card counting techniques used by the MIT team can give players an overall edge of up to about 2%, some of the MIT team's methods have been established as gaining players an overall edge of up to about 4%. However, in his interview Chang reported that the MIT team had difficulty attaining such edges in actual play, and their overall results had been best with straight card counting.

The original team recruited students through flyers posted around campus. The team tested interested students to find out if they were suitable candidates, and if they were, the

team thoroughly trained the new members. A corporate called Strategic Investments bankrolled the team. With the backing of the corporation, they were able to play with a bankroll of hundreds of thousands of dollars, far larger than would normally be available to college students. Eventually, with team morale suffering after a series of large losses, the corporation closed shop, and the original team disbanded, to be replaced by several new teams founded by alumni of the first group.

The team approach used by the MIT groups was originally developed by Al Francesco, elected by professional gamblers as one of the original 7 inductees into the Blackjack Hall of Fame. Blackjack team play was first written about by Ken Uston, an early member of Al Francesco's teams. Uston's book on blackjack team play, *Million Dollar Blackjack*, was published shortly before the founding of the first MIT team. The team methods devised by Al Francesco, and later used by the MIT team, at first made it more difficult for casinos to detect card counting at their tables. Unfortunately, Uston's books alerted casinos to the methods of blackjack team play, and several MIT team members were identified and barred. These members were replaced by fresh MIT students, and play continued. Investigators hired by casinos eventually realized that many of those they had banned had addresses in or near Boston, and the connection with MIT became clear. The detectives obtained copies of recent MIT yearbooks and added photographs from it to their image database.

With most of the original team barred, most members retired, having made an amount variously reported as \$1 million to \$10 million. Some members have used reports of their successes to start public-speaking careers or businesses selling blackjack card counting systems or running blackjack seminars.

## **In the media**

The story of the MIT Blackjack Team was told in the documentary *Breaking Vegas*, in the book *Bringing Down the House*, and on an episode of the Game Show Network documentary series, *Anything to Win*. The private investigation firm referred to as Plymouth in *Bringing Down the House* was Griffin Investigations.[2]

## **Notes**

1. ^ Blackjack Forum interview with Johnny Chang
2. ^ Bearcave.com review of *Bringing Down the House*

## **List of poker players**

Computer poker players | Poker Hall of Fame | World Poker Tour Walk of Fame

## Computer poker players

The game of poker (or at least most of the variants) is considered to be computationally intractable. However, methods are being developed to at least approximate perfect strategy from the combinatorial game theory perspective in the heads-up (two player) game, and increasingly good systems are being created for the multi-player or ring game. Perfect strategy has multiple meanings in this context. From a game-theoretic optimal point of view, a perfect strategy is a minimax one that cannot expect to lose to any other player's strategy; however, optimal strategy can vary in the presence of sub-optimal players who have weaknesses that can be exploited. In this case, a perfect strategy would be one that correctly or closely models those weaknesses and takes advantage of them to make a profit. Some of these systems are based on Bayes theorem, Nash equilibrium, Monte Carlo simulation and Neural networks. A large amount of the research is being done at the University of Alberta by the GAMES group led by Jonathan Schaeffer who developed Poki and PsOpt. The Poki engine has been licensed for the entertainment game STACKED featuring Canadian poker player Daniel Negreanu.

One major aspect of poker is being a game of imperfect information. Some cards in play are concealed, so the players cannot deduce the exact state the game is in. This fundamentally differs from games like chess where all information about the game's current state is public. A major part of the skill of live poker games, however, is guessing at the strength of a player's hand by identifying tells made by other players, while concealing one's own. As a computer would not make any physical tells, playing against a computer would necessitate reading tells only from the bets placed. Once the 'mind' of the computer is known it can be exploited.

Although you cannot read a computer opponent, playing against computer opponents can still help you sharpen your skills by learning how to count outs and play the percentages. With the advancing technology of artificial intelligence, computer players can be created to incorporate bluffs and other human-like decisions.

Pokerbots are bots or computer programs that play online poker disguised as a human opponent. Online poker rooms prohibit the use of bots like WinHoldEm.

### See also

- Cheating in poker

**Categories:** Poker players

## Poker Hall of Fame

The *Poker Hall of Fame* is a group of poker players who have played poker well against top competition for high stakes over a long period of time. It is awarded by Binion's Horseshoe casino.

Members of the Poker Hall of Fame include (with year of induction):

Johnny Moss, 1979  
"Nick the Greek" Dandolos, 1979  
Felton "Corky" McCorquodale, 1979  
Red Winn, 1979  
Sid Wyman, 1979  
"Wild Bill" Hickok, 1979  
Edmond Hoyle, 1979  
T. "Blondie" Forbes, 1980  
Bill Boyd, 1981  
Tom Abdo, 1982  
Joe Bernstein, 1983  
Murph Harrold, 1984  
Red Hodges, 1985  
Henry Green, 1986  
Walter Clyde "Puggy" Pearson, 1987  
Doyle Brunson, 1988  
Jack "Treetop" Straus, 1988  
Fred "Sarge" Ferris, 1989  
Benny Binion, 1990  
"Chip" Reese, 1991  
"Amarillo Slim" Preston, 1992  
Jack Keller, 1993  
Little Man Popwell, 1996  
Roger Moore, 1997  
Stu Ungar, 2001  
Lyle Berman, 2002  
Johnny Chan, 2002  
Bobby Baldwin, 2003  
Berry Johnston, 2004  
Jack Binion, 2005  
Crandell Addington, 2005

**Categories:** Poker players



## World Poker Tour Walk of Fame

The *World Poker Tour Walk of Fame* is designed to honor those poker players who have played the game well at the highest levels as well as those who have promoted the spread of it through film, television, and literature. It was started in 2004.

In February 2004, The World Poker Tour Walk of Fame inducted its first members at the Commerce Casino in a ceremony before top pros and celebrities in town for the World Poker Tour Invitational Poker Tournament. The induction ceremony was staged on the doorstep of Commerce Casino, the Los Angeles region's most prestigious gaming establishment and full service entertainment/hotel complex. Poker room to the stars of Hollywood, Commerce Casino has a rich history of poker in Southern California dating back to 1983.

The next group of honorees will be inducted in February 2006 when The World Poker Tour Walk of Fame is embedded in its permanent location in the casino's forecourt.

The inductees, along with the year they were inducted are as follows:

- Doyle Brunson, 2004
- Gus Hansen, 2004
- James Garner, 2004

**Categories:** Poker players

# Gambling terminology

Poker gameplay and terminology | Advantage player | Availability error | Beginner's luck | Betting odds slang | Boxcars | Card counting | Chinese auction | Crimp | Croupier | Gambler's fallacy | Gambler's ruin | Holdout | Risk premium | Skill | Vigorish

## Advantage player

*Advantage player* is a term used to describe a person who has the ability to play a casino gambling game so skillfully that even without cheating, that person can negate or reverse the casino's typical built-in house advantage in that game. Examples of advantage play include card counting in blackjack and dice control in craps.

Casinos will generally eject an individual whom they identify as being an advantage player. And habitual offenders may ultimately find themselves listed in the Griffin Book, and thus become unwelcome in most casinos. However, advantage players are abiding the established rules of the game, and thus committing no actual fraud against the casino. Therefore, unlike those who cheat outright at the games, advantage players can operate without fear of being criminally prosecuted if they are discovered.

**Categories:** Gambling terminology

## Availability error

*Availability error*, related to the gambler's fallacy, is the distortion of one's perceptions of reality due to the tendency to remember one alternative outcome of a situation much more easily than another.

For example, if surrounded by slot machines people are more likely to continue feeding money into their machine, because they will occasionally see someone else win and think their chances are high of winning: they remember others winning much more readily than they remember all the times they and others have lost. The fact that somebody has won does not change the actual probability of winning, and concentrating on the number of wins fails to take into account the number of losses. People consistently make this mistake, even though the odds of winning are just as bad for the group as for the lone machine. It's just easier to remember winnings in large groups than for the lone machine.

Other examples:

- "Sorry I'm late -- I hit every red light on the way here."
- Anti-"country X" sentiment escalating due to occasional unethical actions of country X.

- "My friend is a choleric, a typical Aries". (the person does not remember hundreds of untypical Aries he has met that were not choleric and falsely believes in the relation between character and the Zodiac Sign)

## Availability Effects in Lethal Events

When asked to rate the probability of a variety of causes of death people tend to rate more "newsworthy" events as more likely. People often rate the chance of death by plane crash higher after plane crashes, and death by natural disaster as too likely only because these events are more reported than more common causes of death.

Similarly, in certain rare situations, safety equipment meant to save lives (e.g. seat belts) may instead hamper life-saving efforts and cause serious injury or death. Although these devices may save many more lives than they cost, only the fatalities are reported by the media, creating controversy about the risks of the safety device.

**Categories:** Gambling terminology

## Beginner's luck

When someone with limited experience achieves better than expected results it is referred to as *beginner's luck*. The term is most often used in reference to a first attempt in sport or gambling. For example, if Mike beats veteran golf player Joe in his first game, Joe might attribute this to beginner's luck. Beginner's luck is also be applicable to non-sporting activities. For example, if Susan takes first prize in her first ever baking contest, she might have had beginner's luck. The term is also used when no skill whatsoever is involved such as a first-time slot machine player winning the jackpot.

One would expect experienced players to outperform novices - when the opposite happens it is counter-intuitive hence the need for a term to describe this phenomenon.

**Categories:** Gambling terminology

## Betting odds slang

*Betting odds slang* is a series of words used to describe particular common fractional odds.

- Evens - Levels, Scotch
- 2/1 - Bottle
- 3/1 - Carpet, Gimmel
- 4/1 - Rouf
- 5/1 - Hand
- 5/2 - Face
- 6/1 - X's

- 7/1 - Nevs
- 8/1 - T.H.
- 9/1 - Enin
- 10/1 - Cockle, Net
- 11/10 - Tips
- 33/1 - Double Carpet
- 100/30 - Burlington Bertie

**Categories:** Gambling terminology

## Boxcars

*Boxcars* is the outcome of rolling the dice in a game of craps and getting a 6 on each die. The pair of 6 pips resembles a pair of box cars on a freight train. In modern parlance, it refers to such a roll in any game involving 6 sided dice which are marked with pips. The probability of this roll is 1 in 36, or about 2.8%. One of the 4 bets on any common craps table. It is on the 'high side' of the horn bet in which the player can either bet on the 2,3,11, or 12. When the player throws in money and calls out "midnight" or "Boxcars", the dealer will usually 'book' the bet as a bet on the 12, so as to not create confusion.

Also called Midnight.

### Related terminology

In some role-playing games, especially ones where a roll of 3 six-sided dice is a standard action-resolution mechanism, a roll of three "six"s is often referred to as a freight train. In roll-low systems (such as GURPS), where a roll of 18 represents a critical failure, or in In Nomine, where a roll of 6 6 6 represents infernal influence on events, it is referred to as a "Freight Train from Hell."

**Categories:** Gambling | Gambling terminology

## Chinese auction

A *Chinese auction* is a type of auction (actually a combination of auction and raffle) that is typically featured at charity or other fundraising events.

In a Chinese auction, bidders are not prospective buyers (as in the conventional English auction). Instead, they buy tickets, which are essentially chances to win items. Bidders may buy as many tickets as they like, and bid them on any item(s) they want by placing them in a basket or other container in front of the item(s) they are trying to win. At the conclusion of bidding, the winning ticket is drawn from the tickets bid on each item, and the item is given to the owner of that ticket.

A bidder may increase their chance of winning by buying and bidding more tickets on a specific item. Although there is generally no limit to the number of tickets a given individual may bid on a specific item, the chance of winning depends on the total number of tickets bid by all individuals.

It is unclear whether this type of auction actually originates in China; it is much more likely that the term derives from "chance auction," which is also another name for this type of auction.

The Chinese auction is similar to the "silent auction," with the difference being that in the silent auction bidders submit bids listing specific amounts that they are willing to pay for a specific item.

**Categories:** Gambling terminology

## Crimp

In gambling terminology a *crimp* is a bend that has been intentionally made on the corner(s) of a playing card to facilitate identification.

A card cheat will typically bend some of the important cards during the game. Below are just several of the most popular examples.

In poker, for instance, a cheat may crimp one of the cards to mark off the exact location where he wishes his secret conspirator to cut the deck. Similarly, if the card cheat is not working with a confederate, he may bend one or more cards to force a cut upon an unsuspecting victim. In either case the deck will most likely be cut at the exact predetermined spot in the same way an old book always tends to open at the same page.

Another poker scenario (also popular in numerous other games) is to crimp some of the high-value cards during the early rounds. On subsequent rounds the cheat will be able to identify some of those cards during the deal. This enables the cheat to employ a second deal and deal some of those cards to the desired hand, or simply to identify some of the cards held by other players. In any event, the cheat has a mathematical edge over the other players.

In casino blackjack a crossroader may crimp all the 10-value cards. this will enable the cheat to sometimes identify the dealer's hole card (the dealer has one card face up, called the up card, and one card face down, called the hole card). In those instances the cheat(s) will know the dealer's total and play their hand(s) accordingly.

**Categories:** Gambling terminology

## Croupier

A *croupier* (in European usage) or *dealer* (in American usage) is a person who takes and pays out bets or otherwise assists at a gambling table, often in a casino. In American usage, dealer may imply a card game, but this is not always the case. For example it is common to refer to a craps dealer[1].

In general, the croupier works only for their salary (and tips) and does not have a personal interest in the outcome of the game.

**Categories:** Gambling | Gambling terminology

## Gambler's fallacy

The *gambler's fallacy* is a logical fallacy that mistakenly believes past events will affect future events when dealing with random activities, such as many gambling games. It can encompass any of the following misconceptions:

- A random event is more likely to occur because it has not happened for a period of time;
- A random event is less likely to occur because it has not happened for a period of time;
- A random event is more likely to occur because it recently happened;
- and
- A random event is less likely to occur because it recently happened.

These are common misunderstandings that arise in everyday reasoning about probabilities, many of which have been studied in great detail. Many people lose money while gambling due to their erroneous belief in this fallacy.

Put simply, the chances of something happening the next time are not necessarily related to what has already happened, especially in many gambling games.

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- 1 An example: coin-tossing
- 2 Other examples
- 3 Non-examples
- 4 See also

### An example: coin-tossing

The gambler's fallacy can be illustrated by considering the repeated toss of a coin. With a fair coin the chances of getting heads are exactly 0.5 (one in two). The chances of it coming up heads twice in a row are  $0.5 \times 0.5 = 0.25$  (one in four). The probability of three heads in a row is  $0.5 \times 0.5 \times 0.5 = 0.125$  (one in eight) and so on.

Now suppose that we have just tossed four heads in a row. A believer in the gambler's fallacy might say, "If the next coin flipped were to come up heads, it would generate a run of five successive heads. The probability of a run of five successive heads is  $0.5^5 = 0.03125$ ; therefore, the next coin flipped only has a 1 in 32 chance of coming up heads."

This is the fallacious step in the argument. If the coin is fair, then by definition the probability of tails must *always* be .5, never more (or less), and the probability of heads must

*always* be .5, never less (or more). While a run of five heads is only 1 in 32 (0.03125), it is 1 in 32 *before* the coin is first tossed. *After* the first four tosses the results are no longer unknown, so they don't count. The probability of five consecutive heads is the same as four successive heads followed by one tails. Tails is no more likely. Each of the two possible outcomes has equal probability no matter how many times the coin has been flipped previously and no matter what the result. Reasoning that it is more likely that the next toss will be a tail than a head due to the past tosses is the fallacy. The fallacy is the idea that a run of luck in the past somehow influences the odds of a bet in the future.

Sometimes, gamblers argue, "I just lost four times. Since the coin is fair and therefore in the long run everything has to even out, if I just keep playing, I will eventually win my money back." However, it is irrational to look at things "in the long run" starting from *before* he started playing; he ought to consider that in the long run from where he is now, he could expect everything to even out to his current point, which is four losses down.

As an example, the popular doubling strategy (start with \$1, if you lose, bet \$2, then \$4 etc., until you win) does not work; see Martingale (roulette system). Situations like these are investigated in the mathematical theory of random walks. This and similar strategies either trade many small wins for a few huge losses (as in this case) or vice versa. With an infinite amount of working capital, one would come out ahead using this strategy; as it stands, one is better off betting a constant amount if only because it makes it easier to estimate how much one stands to lose in an hour or day of play.

Notice that the gambler's fallacy is quite different from the following path of reasoning (which comes to the opposite conclusion): the coin comes up heads more often than tails, so it is not a fair coin, so I will bet that the next toss will be heads also. This is not fallacious, though the first step - the argument from a finite number of observations to a statement of likelihood - is a very delicate matter, and is itself prone to fallacies of its own peculiar kind.

A joke told among mathematicians demonstrates the nature of the fallacy. When flying on an airplane, a man decides to always bring a bomb with him. "The chances of an airplane having a bomb on it are very small," he reasons, "and certainly the chances of having two are almost none!"

Some claim that the gambler's fallacy is a cognitive bias produced by a psychological heuristic called the representativeness heuristic.

## Other examples

- You flip a fair coin 20 times and it comes up heads every time. What is the probability it will come up tails next time? (Answer: 0.5, although the probability of a coin coming up the same 21 times in a row is only 0.000000477.)
- A couple already has two daughters. What is the probability that the next child is a son? (Answer: 0.5, assuming the gender of a child is completely random)
- Are you more likely to win the lottery by choosing the same numbers every time, or by choosing different numbers every time? (Answer: you are

equally likely with either strategy. In reality, you may be better off choosing numbers in such a way as to reduce the risk of splitting the jackpot.)

## Non-examples

There are many scenarios where the gambler's fallacy might superficially seem to apply, where it in fact does not.

- When the probability of different events is *not independent*, the probability of future events can change based on the outcome of past events. An example of this is cards drawn without replacement. It's true that once a jack is removed from the deck, the next draw is less likely to be a jack and more likely to be of another rank. Thus, the odds for drawing a jack, assuming that it was the first card drawn and that there are no jokers, have decreased from 4/52 (7.69%) to 3/51 (5.88%), while the odds for any other card have increased from 4/52 (7.69%) to 4/51 (7.84%).
- When the probability of each event is *not even*, such as with a loaded die, a number which has come up more often in the past may very well continue to do so, if that number is favored by the weighting of the dice. This has been dubbed Nerd's Gullibility Fallacy -- assuming the coin indeed is fair and the gamblers are honest when it isn't the case. This is an example of Hume's principle: twenty tails in a row indicates that it is far more likely that the coin is loaded than that the coin is fair and the next toss will be fifty-fifty heads or tails.
- The outcome of future events can be affected if external factors are allowed to change the probability of the events (e.g. changes in the rules of a game affecting a sports team's performance levels). Additionally, a rookie sports player's success may decrease after opposing teams discover his or her weaknesses and exploit them. The player must then attempt to compensate and randomize his strategy, ultimately resulting in Game Theory.
- Many riddles trick the reader into believing that they are an example of Gambler's Fallacy, such as the Monty Hall problem. Similarly, if I flip a coin twice and tell you that at least one (i.e. one or both) of the flips was heads, and ask what the probability is that they both came up heads, you might answer, that it is 50/50 (or 50%). This is incorrect: if I tell you that one of the two flips was heads then I am removing the tails-tails outcome only, leaving the following possible outcomes: heads-heads, heads-tails, and tails-heads. These are equally likely, so heads-heads happens 1 time in 3 or 33% of the time. If I had specified that the first flip was heads, then the chances the second flip was heads too is 50%.



## See also

- Availability error
- Gambler's ruin

**Categories:** Gambling terminology

# Gambler's ruin

The basic meaning of **gambler's ruin** is a gambler's loss of the last of his bank of gambling money and consequent inability to continue gambling. "Gambler's ruin" is also sometimes used to refer to a final large losing bet placed in the hopes of winning back all the gambler has lost during a gambling session.

More generally however the phrase refers to the ever decreasing expected value of a gambler's bank as he continues to gamble with his winnings.

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  - 1.2 Casino games
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## Examples

### Coin flipping

Consider a flipping coin game with two players where each player has a 50% chance of winning each flip. After a flip the loser transfers one penny to the winner. The game ends when one player has all the pennies. If there is no other limit on the number of flips, the probability that the game will eventually end this way is 100%.

It follows that the player that starts with fewest pennies is most likely to fail. Even with equal odds, the longer one gambles, the greater the chance that the player starting out with the most pennies wins. However, this does not imply positive expected value for richer player since for each complete game (many flips) that the richer player loses, he will forfeit more pennies than his poorer playmate.

Consider players with 90 and 10 pennies respectively, repeating the game 100 times. The player with 90 pennies is expected to win 90 out of 100 complete games, winning 10 pennies each game. However, he is also expected to lose 10 games, each time forfeiting all 90 of his

pennies. So after the series of 100 games, the richer player is expected to win  $90 \times 10 = 900$  pennies, and lose  $10 \times 90 = 900$  pennies. Despite the fact that after any single game, one player ends up with all the pennies, the expected result over many games is for both players to break even.

A casino generally has:

- many more pennies than any player thus ensuring that the player is much more likely than the casino to experience gambler's ruin;
- odds that favor the casino resulting in negative expected return for the player; and
- various risk management techniques that limits their maximum loss.

The combination of above ensures that the casino will in the vast majority of cases come out ahead in the long run. For an illustration, see this Gambler's Ruin simulation: [1]

## Casino games

A typical casino game has a slight house advantage. The advantage is the long-run expectation, most often expressed as a percentage of the amount wagered. It remains constant from one play to the next. If the long-run expectation is expressed as a percentage of the amount that the player starts with, however, then the house advantage increases the longer the player continues.

For example, the official house advantage for a casino game might be 1%, and thus the expected value of return for the gambler is 99%. However, this math would only be true if the gambler never used the results of a winning bet again. Thus after gambling 100 dollars the idealized average gambler would be left with 99 dollars, but, if he continued to bet using his 99 dollars in winnings, he would again lose 1% on average and his expected value would go down to 98.01 dollars. This downward spiral continues until the gambler's expected value approaches zero: gambler's ruin.

The long-run expectation will not necessarily be the result experienced by any particular gambler. The gambler who plays for a finite period of time may finish with a net win, despite the house advantage, or may go broke much more quickly than the mathematical prediction.

## Speculation

It might be pointed out that where economic activity is concentrated in transfers of wealth rather than its creation, gambler's ruin results in most of the wealth being held by a very small number of participants. We see this in the stock market when speculative activity is the norm rather than long-term dividend producing investment.

## See also

- Gambler's fallacy
- Martingale (roulette system)

**Categories:** Gambling terminology

## Holdout

In gambling jargon, a *holdout* is any of numerous accessories used by cheats to help them "hold-out" a card (or cards) during a game. Some holdout devices are extremely simple and require moderate or advanced manipulative skill to be used properly. On the other hand, there is a group of holdout devices which are mechanical in nature, therefore they fall under a separate category of holdout machines. Even if those machines are complex mechanical apparatuses, they still require a good level of skill from the cheat's part, to be used well.

Most of the holdout devices used today were invented in the 19th century.

The main purpose of any holdout device is to temporarily hold a card out of the game, so that the cheat may retrieve it at some later convenient time. Only one card out of play can tremendously increase the odds of winning. The cheat not only knows the identity of this card (an advantage that no other player has) and knows that it couldn't possibly be dealt to any other player, but this card also serves as if an extra card was dealt to the cheat on every round. In effect, this is as if the cheat was dealt a bonus card, so that he may decide which combination of cards he likes best and finally discard the unwanted one, only to possibly use it on the next round (or at least switch it for a better one).

Some of the most popular holdouts are:

the arm pressure sleeve holdout  
the ring holdout  
the vest holdout  
the Kepplinger holdout  
the cuff holdout

**Categories:** Gambling terminology

## Risk premium

A *risk premium* is the minimum difference between the expected value of an uncertain bet that a person is willing to take and the certain value that he is indifferent to.

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### Example

Suppose a game show participant may choose one of two doors, one that hides \$1,000 and one that hides \$0. Further suppose that the host also allows the contestant to take \$500 instead of choosing a door. All three options (door 1, door 2, or take \$500) have the same expected value of \$500, so there is no risk premium for choosing the doors over the guaranteed \$500.

A contestant unconcerned about risk is indifferent to these choices. However, a risk averse contestant may be more likely to choose no door and accept the guaranteed \$500.

If too many contestants are risk averse, the game show may encourage selection of the riskier choices (door 1 or door 2) by creating a risk premium. If the game show offers \$2,000 behind the good door, increasing to \$1,000 the expected value of choosing doors 1 or 2, the risk premium becomes \$500 (i.e., \$1,000 expected value - \$500 guaranteed amount). Contestants with a minimum acceptable rate of return of \$500 or more will likely choose a door instead of accepting the guaranteed \$500.

### Finance

In finance, the *risk premium* can be the expected rate of return above the risk-free interest rate.

- Debt: In terms of bonds it usually refers to the credit spread (the difference between the bond interest rate and the risk-free rate).
- Equity: In the equity market it is the returns of a company stock, a group of company stock, or all stock market company stock, minus the risk-free rate. The return from equity is the dividend yield and capital gains. The risk premium for equities is also called the equity premium.

The white paper *Equity Risk Premium: Expectations Great and Small* notes that “it is dangerous to engage in simplistic analyses of historical ERPs to generate ex ante forecasts that differ from the realized mean.” Standard & Poor’s states “the most correct method is to use an arithmetic average of historical returns.”

**Categories:** Wagering | Gambling terminology

# Shill

A *shill* is an associate of a person selling goods or services who pretends no association to the seller and assumes the air of an enthusiastic customer. The intention of the shill is, using crowd psychology, to encourage other potential customers unaware of the set-up to purchase said goods or services. Shills are often employed by confidence artists.

The word "shill" is probably related to "shillaber", a word of obscure early-20th century origin with the same meaning.

Shills are illegal in many circumstances and in many jurisdictions because of the frequently fraudulent and damaging character of their actions. However, if a shill does not place uninformed parties at a risk of loss, but merely generates "buzz," the shill's actions may be legal. For example, a person planted in an audience to laugh and applaud when appropriate, see "claque", or to participate in on-stage activities as a "random member of the audience", is a type of legal shill.

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## Shills in gambling

The illegal and legal gambling industries often use shills to make winning at games appear more likely than it actually is. For example, illegal three card monte peddlers are notorious employers of shills. These shills also often aid in cheating; they will disrupt the game if the mark is likely to win.

In a legal casino, however, a shill is sometimes a gambler who plays using the casino's money in order to keep games (e.g. especially poker) going when there are not enough players. (This is different from a proposition player who is paid a salary by the casino for the same purpose, but bets with their own money.)

## Shills on message boards

In online discussion media, such as message boards, discussion forums, and newsgroups, shills may pose as independent experts, satisfied consumers, or "innocent" parties with specific opinions in order to further the interests of an organization in which they have an interest, such as a commercial vendor or special-interest group. For example, an employee of a company that produces a specific product may praise the product anonymously in a

discussion forum or group in order to heighten and generate interest in that product, or a member or sympathizer of a special-interest group may pose as a highly-qualified expert in a specific field in order to give apparently disinterested support to whatever cause the group promotes.

In some jurisdictions and in some circumstances, this type of activity may be illegal. In addition, reputable organizations may prohibit their employees and other interested parties (contractors, agents, etc.) from participating in public forums or discussion groups in which a conflict of interest might arise, or will at least insist that their employees and agents refrain from participating in any way that might create a conflict of interest.

In some cases, the members of an organization or the employees of a company may monitor and/or participate in public discussions and groups. Such people are not shills, since they don't attempt to mislead others. Some of them may monitor groups in order to better evaluate public and consumer attitudes about a certain product, issue, etc.; others may participate in order to provide information about products or other topics in a neutral way. Some companies allow their employees to participate anonymously in public discussion groups for the purpose of providing information or expressing opinions, as long as there is no intent to defraud and the employee's affiliation with the company is not mentioned (because mentioning the company might make a personal opinion seem like a corporate policy announcement, which would be both misleading and likely to incur liability for the company). Occasionally employees of a company may participate openly in discussions but will include disclaimers making it clear that they speak only for themselves. Finally, on rare occasions, employees of a company may participate openly in a discussion and speak officially on behalf of their employers—but when this occurs, often the employees are moderators of the discussion venue as well, and it is likely to be sponsored by the company (as opposed to venues operated by third parties or open to anyone, such as USENET).

## **Shills in marketing**

In marketing, shills are often employed to assume the air of satisfied customers and give testimonials as to the merits of a given product. This type of shilling is illegal and almost impossible to detect.

## **Shills in retail**

In retail, shills assume the air of enthusiastic customers. This is done particularly when goods of usually negotiable prices—like automobiles—are to be sold; otherwise, it is not very profitable. This type of shilling is probably legal, but rarely used because of the damage it threatens to a retailer's reputation.

A more disturbing case is where a vacant shop is taken over for a very short period (say, a few days, or a week) solely to sell shoddy goods. The seller asks the audience who will buy the offered good-quality item, quoting a low price. The shill immediately "buys" it and triumphantly displays the item to genuine customers as he departs. The seller declares there are many more similar items and that they are fully guaranteed and returnable. In fact,

subsequent sales to genuine customers are of faulty or very poor quality goods for inflated prices. Customers that later attempt to return the goods for refund will sometimes be intimidated and deterred by the seller's bodyguards, or be told to return on a later date (by which time the shop is no longer in business). This is usually illegal.

## **Shills in auctions**

Shills, or "potted plants", are frequently employed in auctions. Driving prices up with phony bids, they seek to provoke a bidding war among other participants. Often they are told by the seller precisely how high to bid, as the seller actually pays the price (to himself, of course) if the item does not sell, losing only the auction fees.

Shilling is an even larger problem in online auctions, where any user with multiple accounts (and IP addresses) can shill without aid of participants. Many online auction sites employ sophisticated (and usually secret) methods to detect collusion, and a number of people have been sent to jail for online auction fraud in the past decade. See more at: [The Hazards of Online Auctions](#)

A common shilling tactic is to have two shills. The first is a young child who offers a low bid for a moderately-priced item. Other auction participants will be reluctant to outbid him. The second shill is an ill-mannered and usually overweight man who does just that—he outbids the kid, who starts crying. In theory, this should provoke other auction participants to outbid the man solely for the sake of beating him; by bidding well beyond the item's value, he can artificially increase prices.

This practice is illegal in virtually all jurisdictions.

## **Shills in journalism**

Many people consider the use of shills in journalism—usually by commercial or political interests—to be the most dangerous of all. The term is applied metaphorically, by comparison with the above, to commentators who have vested interests in or associations with parties in a controversial issue. Usually this takes the form of a show or network pretending to be offering news when in fact they are simply repeating "talking points" offered by a political party.

Journalistic ethics, of course, require full disclosure of conflicts of interest, and of any interference by other parties with the reportage. But it is difficult to draw the line between normal influence and illicit interference. Furthermore, it has been suggested that the internalization of sponsors' values by members of commercial media make it impossible to notice such conflicts of interest.

**Categories:** Gambling terminology

## **Vigorish**

*Vigorish*, or simply "*vig*", or "*juice*", is the amount charged by a bookmaker for his services. The term is Yiddish slang originating from the Russian word for "winnings," *vyigrysh*. The concept is also known as the *overround*.

Bookmakers use this concept to make money on their wagers regardless of the outcome. Because of the vigorish concept, bookmakers should not have an interest in either side winning in a given sporting event. They are interested, however, in getting equal action on each side of the event. In this way, the bookmaker minimizes their risk and always collects a small commission from the vigorish. The bookmaker will normally adjust the odds (or line) to attract equal action on each side of an event.

A common misconception about vigorish is that the loser pays it. Win or lose, all players pay the same commission to the bookmakers. This is figured into all bets beforehand, as illustrated below.

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## Example

Let's say two people want to bet on opposing sides of an event with even odds. They are going to make the bet between each other without using the services of a bookmaker. Each person is willing to risk \$100 to win \$100. After each person pays their \$100, there is a total of \$200 in the pot. The person who loses receives nothing and the winner receives the full \$200.

By contrast, when using a sportsbook, each person must risk or "lay" \$110 to win \$100. The \$10 is, in effect, a bookmaker's commission for taking the action. This \$10 is not "in play" and cannot be doubled by the winning bettor. It can only be lost. A losing bettor simply loses his \$110. A winning bettor wins back his original \$110, plus his \$100 winnings, for a total of \$210.

## Debate

Since the winning bettor got his full \$110 wager back, plus \$100 in winnings, many observers will assert that only the losing bettor paid the vigorish. Others would attest that the winner - who had risked \$110 and only received \$210 in the end, instead of doubling his money to \$220 - is the only bettor who paid the vig. Since both bettors lay \$110 to win \$100, both are paying the vig.



## Other kinds of vigorish

- In table poker, the vigorish, more commonly called the **rake**, is a fraction of each bet placed into the pot. The dealer removes the rake from the pot after each bet (or betting round), making change if necessary. The winner of the hand gets the money that remains in the pot after the rake has been removed.
- In the house-banked version of baccarat (also mini-baccarat) commonly played in North American casinos, vigorish refers to the 5% commission charged to players who win a bet on the "banker" hand. The rules of the game are structured so that the "banker" hand wins slightly more often than the "player" hand; the 5% vigorish restores the house advantage to the casino for both bets. In most casinos, a winning banker bet is paid at even money, with a running count of the commission owed kept by special markers in a "commission box" in front of the dealer. This commission must be paid when all the cards are dealt from the shoe or when the player leaves the game. Some casinos don't keep a running commission amount, and instead withdraw the commission directly from the winnings; a few require the commission to be posted along with the bet, in a separate space on the table.
- In pai gow poker, a 5% commission charged on all winning bets is referred to as vigorish. Unlike baccarat, the commission is paid after each winning bet, either by the player handing in the amount from his stack of chips, or by having the "vig" deducted from the winnings. Pai gow poker is an even game, without any built-in advantage for "the house"; the commission restores the advantage.
- In craps, vigorish refers to the 5% commission charged on a "buy" bet, where a player wished to bet that one of "the numbers" — 4, 5, 6, 8, 9 or 10 — will be rolled before a 7 is rolled. The commission is charged at the rate of \$1 for every \$20 bet. The bet is paid off at the true mathematical odds, but the 5% commission is paid as well, restoring the house advantage. For many years, this commission was paid whether the bet won or not. In recent years, many casinos have changed to charging the commission only when the bet wins, which greatly reduces the house advantage; for instance, the house advantage on a buy bet on the 4 or 10 is reduced from 5% to 1.67%, since the bet wins one-third of the time (2:1 odds against). In this case, the vig may be deducted from the winnings (for instance, a \$20 bet on the 4 would be paid \$39 — \$40 at 2:1 odds, less the \$1 commission), or the player may simply hand the commission in and receive the full payout. This rule is commonplace in Mississippi casinos, and becoming more widely available in Nevada.
- Vig may generically refer to the built-in house advantage on most bets on any game in a casino.
- Vig also refers to the interest a loan shark charges.

**See also**

- Rake

## References

DragonBets: Vigorish Explained  
**Categories:** Gambling terminology | Wagering

# Gambling and society

Casino Night | Charity gambling | Compulsive gambling | Gamblers Anonymous | Gambling advertising

## Casino Night

A *Casino Night* (also called Vegas Nights, Las Vegas Nights, Monte Carlo Nights, Casino Parties) is an entertainment event with a casino theme.

Casino Night Parties are usually tied to a fundraiser, and are often held on riverboats, in churches, hotels etc. The main objective of most casino night parties is to raise money for a specific cause (such as cancer research, community services, etc) by having each participant purchase a ticket for the event. Each participant receives a specific amount of play money that can be used to purchase gaming chips at the gambling tables. The participants engage in various casino games (such as blackjack, roulette, baccarat, craps, poker, wheel of fortune, etc.) in the attempt to accumulate the largest amount of gaming chips. At the end of the evening the participant who managed to win the most chips receives some kind of prize.

Casino Nights function strictly as entertainment events with no real monetary gambling involved.

**Categories:** Gambling and society

## Charity gambling

*Charity gambling* is the practice where typical gambling 'games' such as bingo, roulette, lotto, slot-machines, etc. are overseen by a charity or group of charities. The profits from the venture go to the charity or group of charities, rather than to a municipality or private casino. Sometimes this occurs as a 'one time event' during a 'Charity Ball' or such type party. In other cases, Charity interests maintain ongoing gambling concerns. There are many websites on which Charity Gambling is available 24 x 7, and which report various percentages of the profits being donated to various charities.

**Categories:** Gambling and society | Gambling

## Compulsive gambling

*Compulsive gambling* is an urge or addiction to gamble despite harmful negative consequences or a desire to stop. A preferred term among many professionals is *problem gambling*, as few people described by the term experience true compulsions in the clinical sense of the word. Problem gambling often is defined by whether harm is experienced by the

gambler or others rather than by the gambler's behavior. Severe problem gambling may be diagnosed as clinical *pathological gambling* if the gambler meets certain criteria.

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## Pathological gambling

Extreme cases of problem gambling may cross over into the realm of mental disorders. Pathological gambling was recognized as a psychiatric disorder in the DSM-III, but the criteria were significantly reworked based on large-scale studies and statistical methods for the DSM-IV. As defined by American Psychiatric Association, pathological gambling is an impulse control disorder that is a chronic and progressive mental illness.

Pathological gambling is now defined as persistent and recurrent maladaptive gambling behavior meeting at least five of the following criteria, as long as these behaviors are not better explained by a manic episode:

1. Preoccupation. The subject has frequent thoughts about gambling experiences, whether past, future, or fantasy.
2. Tolerance. As with drug tolerance, the subject requires larger or more frequent wagers to experience the same "rush."
3. Withdrawal. Restlessness or irritability associated with attempts to cease or reduce gambling.
4. Escape. Subject gambles to improve mood or escape problems.
5. Chasing. Subject attempts to win back gambling losses with more gambling.
6. Lying. Subject attempts to hide the extent of his or her gambling by lying to family, friends, or therapists.
7. Loss of control. Subject has unsuccessfully attempted to reduce gambling.
8. Illegal acts. Subject has broken the law in order to obtain gambling money or recover gambling losses.
9. Risked significant relationship. The subject gambles despite risking or losing a relationship, job, or other significant opportunity.
10. Bailout. Subject turns to family, friends, or another third party for financial assistance as a result of gambling.

As with many disorders, the DSM-IV definition of pathological gambling is widely accepted and used as a basis for research and clinical practice internationally.

The most common instrument used to screen for "probable pathological gambling" behavior is the South Oaks Gambling Screen (SOGS) developed by Lesieur and Blume (1987) at the South Oaks Hospital in New York. This screen is undoubtedly the most cited instrument in psychological research literature.

## Incidence

According to the National Council on Problem Gambling, incidence of problem gambling is 2-3% and pathological gambling is 1% in the United States, though this may vary by country. By contrast, 86% of Americans have gambled in their lives and 60% gamble in a given year.

Available research seems to indicate that problem gambling is an internal tendency, and that problem gamblers will tend to risk money on whatever game is available—as opposed to the availability of a particular game inducing problem gambling in otherwise "normal" individuals. However research also indicates that problem gamblers tend to risk money on fast-paced games. Thus a problem gambler is much more likely to lose a lot of money on poker or slot machines, where rounds end quickly and there is a constant temptation to play again or increase bets, as opposed to a state lottery where the gambler must wait until the next drawing to see results.

Dopamine agonists, in particular pramipexole (Mirapex), have been shown to cause compulsive gambling (PMID 16009751).

**Categories:** Gambling and society

## Gamblers Anonymous

*Gamblers Anonymous* is an international organization of men and women who share their experience, strength and hope with each other to solve their common problem and help others to recover from a gambling problem.

The only requirement for GA membership is a desire to stop gambling.

The GA group is based on the Alcoholics Anonymous model which brings together people with similar addictive behaviors and uses as its structure the practice of the Twelve Steps and the Twelve Traditions.

Successful recovery from compulsive gambling in this context seems to depend on the following variables:

1. The degree of hopelessness that the member feels when he arrives. Open-mindedness to the GA program of recovery is often proportional to the desperation being experienced by the new member. If a person has already explored other methods of controlling or stopping his gambling and has been unsuccessful, he is more apt to listen to the GA method.

2. A willingness to be honest with other members about their gambling. The compulsive gambler tends to minimize the damage that their gambling has caused. This is a strategy that all gamblers use in order to live with their problem, as often the real implications of what they are doing are too horrible to contemplate. But if a member can be honest about the pain that their gambling is actually creating, their motivation will be increased to find a solution. Such honesty is possible if the member senses that GA is really offering a way out.

3. Identification with other members. In the GA context, members tell their stories about their gambling and what they have done in order to stop gambling. After awhile, it is possible

to see the similarity beneath all the stories, as far as the progressiveness of the dis-ease goes and the futility of other methods used to stop gambling. What emerges from such a reading of those stories is an awareness in the new member that what he has been suffering from is actually a definable condition with a definable solution. The new member can then draw the conclusion that if those members have overcome their gambling problem, perhaps I can too. Hope for oneself is felt and this energy can be used to pursue the solution. Conversely, those members who are still at the point where they are trying to devise personal solutions to outwit their gambling or are looking for hints as to how to gamble "normally," will hear the stories in such a way so as to justify their own continued gambling, i.e., "At least I'm not as bad as that guy."

4. Accepting that the solution has a spiritual component and a willingness to explore the solution in that context. In the broadest of terms, compulsive gambling can be thought of as a "power." The gambler often finds himself acting against his best intentions and is puzzled by his seemingly powerlessness to just not gamble. The compulsion to do so is experienced as a powerful urge and seems to have a life of its own within the gamblers mind. The gambler uses his willpower to try and control the power of his compulsive gambling but is ultimately always unsuccessful. The GA program acknowledges this power and admits that it cannot be controlled by the individual. What can be done is for the gambler to acquire a stronger, competing power in order to supercede the power of gambling. This is the ultimate goal of the Twelve Steps. GA is not offering the traditional religious solution that one might associate with such a discussion but, rather, asks that the individual formulate a personal spirituality that might or might not include traditional religious components. With all successful GA members, on some level, they have found a source of strength beyond their own unaided wills that has enabled them to stop gambling.

5. Regular attendance at meetings.

**Categories:** Gambling and society

## **Gambling advertising**

*Gambling advertising* is the promotion of gambling by casinos, lotteries, bookmakers or other organisations that provide the opportunity to make bets. It is usually conducted through a variety of media or through sponsorship deals, particularly with sporting events or people.

Although not as highly regulated as tobacco advertising and alcohol advertising, in many countries there are strict laws about the way in which such services can be marketed.

Gaming operators often sponsor sporting events, sportspeople or television coverage. For example, Bet365 sponsor snooker players and the Channel 4 coverage of The 2005 Ashes was sponsored by Betfair, both being online betting sites.

**Categories:** Gambling | Gambling and society

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